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November 16, 2023  
File No. 20.0158385.01

Steven and Richard Klinke  
Klinke's Clothing Care Corporation  
4518 Monona Drive  
Madison, Wisconsin 53716-1051

Re: Notification of Groundwater Sampling Results  
Klinke's Clothing Care Corporation  
4518 Monona Drive  
Madison, Wisconsin  
BRRTS File No. 02-13-551928

Dear Mr. Steven and Mr. Richard Klinke:

As a follow-up to our prior communications and our November 7, 2023 meeting with Ms. Cindy Koepke of the Wisconsin Department of Natural Resources (WDNR), GZA GeoEnvironmental, Inc. (GZA) is providing you with the recent groundwater results. GZA collected groundwater samples in June 2023 and August 2023, on and off of the Klinke's Clothing Care Corporation ("Klinke Cleaners"/"Client") property located at 4518 Monona Drive in Madison, Wisconsin ("Site"). This letter presents a summary of GZA's understanding of the Site, our recent groundwater sampling activities, and the groundwater analytical results. Please note that this letter is subject to the Limitations provided in **Attachment 1**.

#### **BACKGROUND**

The facility is located at 4518 Monona Drive and is situated within an area of mixed residential and commercial land use in the City of Madison, Wisconsin. The Site consists of a two-story, 18,770 square-foot building that houses Klinke Cleaners' corporate offices, dry cleaning operations, and several spaces occupied by commercial tenants. Tetrachloroethene (PCE) was utilized at the Site between 1969 and 2008, for dry cleaning activities. In addition, historically, three additional dry cleaners operated within the immediate area of the Site.

In 2010, a soil excavation was implemented and approximately 264 tons of PCE-affected soils were removed, with the highest soil PCE concentration of 334,000 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). A second soil excavation was conducted in 2013, during reconstruction activities of Monona Drive. Approximately 13,500 tons of soil were removed, with the highest soil PCE concentration of 4,700  $\mu\text{g}/\text{kg}$ . The removed soils consisted of silty clay to sandy clay.

In January 2015, a soil and bedrock vapor extraction pilot test was conducted to address vapor phase PCE. Approximately 8 pounds of PCE were removed during the 28-hour pilot test. The full-scale extraction system was installed in July 2015, and as of 2018, approximately 550 pounds of PCE were removed. In 2016, in-situ enhanced reductive dichlorination (ERD) was conducted via injection barrier walls located on the east and west Site boundaries. A total of 58,000 pounds of ERD and PlumeStop<sup>®</sup>, a sorption and biodegradation product, were injected into soils and bedrock during two injection events. In addition, a pilot test for biodegradation of PCE was conducted in 2015, via injection points that were installed in the source area soils and bedrock under the building. The biodegradation injection of 850 gallons consisted of microorganisms, an electron donor emulsion, and an iron-based reagent. A full-scale injection application was conducted in 2016.



The depth to sandstone bedrock at the Site was approximately 8 feet below ground surface (bgs) and the dolomitic siltstone layer was approximately 40 to 45 feet bgs, beyond which was sandstone bedrock to the maximum depth explored of 120 feet bgs. Groundwater was encountered between approximately 40 and 50 feet bgs.

The most recent round of groundwater sampling that had been conducted at the Site was conducted in 2019. The results of the vapor extraction and ERD and bioaugmentation injections reported reductions in PCE concentrations between 70% and 99% for wells across the dissolved PCE plume area.

## **GROUNDWATER INVESTIGATION**

On June 29 and 30, 2023, GZA collected groundwater samples from three existing monitoring wells. Two monitoring wells (MW-2 and MW-3) were located on the Site, and one monitoring well (MW-18) was located off of the Site, approximately 800 feet downgradient.

The monitoring wells were purged and sampled using a bladder pump with dedicated tubing to ensure that the groundwater in the wells was representative of aquifer conditions prior to sample collection. During purging, field parameters (temperature, pH, dissolved oxygen [DO], specific conductance, oxidation-reduction potential [ORP], and turbidity) were monitored using a flow-through cell until the parameters stabilized. The groundwater sampling activities and measurements were recorded on a groundwater sampling form.

Following purging, the tubing was disconnected prior to the flow-through cell and groundwater samples were collected in laboratory-supplied sample containers directly from the sample tube. The samples were placed on ice in an insulated cooler and shipped via overnight carrier under chain-of-custody control to Pace Analytical® (Pace) in West Columbia, South Carolina for per- and polyfluoroalkyl substances (PFAS) analysis by PFAS ID SOP.

On August 22, 2023, GZA collected groundwater samples from five existing monitoring wells. Two monitoring wells (MW-1 and MW-2) were located on the Site near the Site building, and three monitoring wells (MW-16, MW-18, and MW-22) were located off of the Site, approximately 400 to 1,400 feet downgradient.

Prior to purging, the depth to groundwater relative to the top of casing was measured in each well prior to purging. The monitoring wells were purged and sampled using a bladder pump with dedicated tubing to ensure that groundwater in the wells was representative of aquifer conditions prior to sample collection. During purging, field parameters (temperature, pH, dissolved oxygen, specific conductance, oxidation-reduction potential, and turbidity) were monitored using a flow-through cell until the parameters stabilized. The groundwater sampling activities and measurements were recorded on a groundwater sampling form.

Following purging, the tubing was disconnected prior to the flow-through cell and groundwater samples were collected in laboratory-supplied sample containers directly from the sample tube. The samples were placed on ice in an insulated cooler and shipped via overnight carrier under chain-of-custody control to Pace in Green Bay, Wisconsin for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260.

## **GROUNDWATER ANALYTICAL RESULTS**

The PFAS groundwater analytical results are summarized on **Table 1** and the results were compared to the USEPA Proposed PFAS National Primary Drinking Water Regulations (NPDWR). The NPDWR proposes Maximum Contaminant Levels (MCLs) for six PFAS in drinking water; perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) as individual contaminants, and perfluorohexane sulfonate (PFHxS), perfluorononanoic acid (PFNA), perfluorobutane sulfonic acid (PFBS), and hexafluoropropylene oxide dimer acid (HFPO-DA) (commonly referred to as GenX Chemicals) as a PFAS mixture. The NPDWR establishes a concentration of 4 nanograms per liter (ng/L) for PFOS and PFOA, and a hazard index of 1.0 for GenX, PFNA, PFHxS, and PFBS. The comparison of the analytical results to the NPDWR values is considered to be a conservative approach, as the current proposed WDNR standard for PFOS and PFOA is 20 nanograms per liter (ng/l), separate and combined.



The analytical results indicate the following NPDWR exceedances:

- PFOA was detected above the NPDWR MCL in MW-3 at 13 ng/L.
- The hazard index value for MW-3 was calculated to be 3.78, which exceeds the NPDWR hazard index value of 1.0.
- The average hazard index value for the Site was calculated to be 1.58, which exceeds the NPDWR hazard index value of 1.0.

The VOC groundwater analytical results are summarized on **Table 2** and the results are compared to the Wisconsin Administrative Code (Wis. Adm. Code) Enforcement Standards (Ess) and Preventive Action Limits (PALs). The analytical results indicated chlorinated VOC (cVOC) concentrations had declined or stabilized in several wells since the last comprehensive sampling completed in 2019. The analytical results with constituent exceedances above the respective NR 140 standards are presented below:

- PCE was detected above the ES (5.0 micrograms per liter [ $\mu\text{g/L}$ ]) in MW-1 (54.6  $\mu\text{g/L}$ ), MW-2 (141  $\mu\text{g/L}$ ), MW-18 (30.4  $\mu\text{g/L}$ ), and MW-22 (29.5  $\mu\text{g/L}$ ). PCE was detected above the PAL (0.5  $\mu\text{g/L}$ ) in MW-16 (1.4  $\mu\text{g/L}$ ).
- Trichloroethene (TCE) was detected above the ES 5.0 ( $\mu\text{g/L}$ ) in MW-1 (15.2  $\mu\text{g/L}$ ) and MW-2 (9.0  $\mu\text{g/L}$ ), and above the PAL (0.5  $\mu\text{g/L}$ ) in MW-22 (1.0  $\mu\text{g/L}$ ).
- Cis-1,2-dichloroethene (cis-1,2-DCE) was detected above the ES (70  $\mu\text{g/L}$ ) in MW-1 (123  $\mu\text{g/L}$ ).
- Vinyl chloride was detected above the ES (0.2  $\mu\text{g/L}$ ) in MW-1 (26.9  $\mu\text{g/L}$ ) and MW-2 (2.9  $\mu\text{g/L}$ ).

The laboratory analytical reports are provided in **Attachment 2**.

## CLOSING

We trust that this information meets your needs. We suggest that this document is conveyed to the WDNR following your review. Should you have questions regarding the attached environmental analytical testing results, please feel free to contact Ms. Stephenson at (262) 202-1716 or via email at [sheryl.stephenson@gza.com](mailto:sheryl.stephenson@gza.com).

Very truly yours,

**GZA GeoEnvironmental, Inc.**

Sheryl I. Stephenson, P.G.  
Project Hydrogeologist

James F. Drought, P.H.  
Principal Hydrogeologist

Attachments: Tables 1 and 2  
Limitations  
Laboratory Analytical Reports



## TABLES

**TABLE 1**  
**GROUNDWATER ANALYTICAL RESULTS - PFAS**  
**Klinke's Clothing Care Corporation**  
**4518 Monona Drive**  
**Madison, Wisconsin**

Sample Date Collected By	USEPA NPDWR	Units	MW-2	MW-3	MW-18
			6/30/2023 GZA	6/29/2023 GZA	6/30/2023 GZA
<b>PFAs</b>					
Perfluoro-1-butanefulfonic acid (PFBS)	1.0 H.I	ng/L	9.3	7.7	2.6 J
Perfluoro-1-decanesulfonic acid (PFDS)	NS	ng/L	<3.8	<3.5	<3.7
Perfluoro-1-heptanesulfonic acid (PFHpS)	NS	ng/L	<3.8	<3.5	<3.7
Perfluoro-1-nonanesulfonic acid (PFNS)	NS	ng/L	<3.8	<3.5	<3.7
Perfluoro-1-octanesulfonamide (PFOSA)	NS	ng/L	<3.8	<3.5	<3.7
Perfluoro-1-pentanesulfonic acid (PFPeS)	NS	ng/L	3.3 J	2.2 J	<3.7
Perfluorododecanesulfonic acid (PFDOS)	NS	ng/L	<7.7	<7.0	<7.4
Perfluorohexanesulfonic acid (PFHxS)	1.0 H.I	ng/L	4.3	34	4.3
Perfluoro-n-butanoic acid (PFBA)	NS	ng/L	37	19	16
Perfluoro-n-decanoic acid (PFDA)	NS	ng/L	<3.8	<3.5	<3.7
Perfluoro-n-dodecanoic acid (PFDoA)	NS	ng/L	<3.8	<3.5	<3.7
Perfluoro-n-heptanoic acid (PFHpA)	NS	ng/L	<3.8	11	1.7 J
Perfluoro-n-hexanoic acid (PFHxA)	NS	ng/L	9.7	13	3.3 J
Perfluoro-n-nonanoic acid (PFNA)	1.0 H.I	ng/L	<3.8	<3.5	<3.7
Perfluoro-n-octanoic acid (PFOA)	4	ng/L	2.6 J	<b>13</b>	2.6 J
Perfluoro-n-pentanoic acid (PFPeA)	NS	ng/L	13	11	3.5 J
Perfluoro-n-tetradecanoic acid (PFTeDA)	NS	ng/L	<3.8	<3.5	<3.7
Perfluoro-n-tridecanoic acid (PFTrDA)	NS	ng/L	<3.8	<3.5	<3.7
Perfluoro-n-undecanoic acid (PFUdA)	NS	ng/L	<3.8	<3.5	<3.7
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	<3.8	<3.5	<3.7
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	NS	ng/L	<7.7	<7.0	<7.4
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	NS	ng/L	<7.7	<7.0	<7.4
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	NS	ng/L	<7.7	<7.0	<7.4
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	NS	ng/L	<7.7	<7.0	<7.4
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	NS	ng/L	<7.7	<7.0	<7.4
Hexafluoropropylene oxide dimer acid (GenX)	1.0 H.I	ng/L	<7.7	<7.0	<7.4
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	ng/L	<7.7	<7.0	<7.4
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	NS	ng/L	<7.7	<7.0	<7.4
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	NS	ng/L	<7.7	<7.0	<7.4
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	NS	ng/L	<7.7	<7.0	<7.4
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	NS	ng/L	<15	<14	<15
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	NS	ng/L	<7.7	<7.0	<7.4
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	NS	ng/L	<7.7	<7.0	<7.4

HAZARD INDEX	
MW-2	0.48
MW-3	<b>3.78</b>
MW-18	0.48
<b>Average</b>	<b>1.58</b>

**Notes:**

- Groundwater samples were analyzed by Pace Analytical of West Columbia, South Carolina.
- Analytical results are presented in nanograms per liter (ng/l); equivalent to parts per trillion (ppt).
- Results are compared to the United States Environmental Protection Agency (USEPA) Proposed PFAS National Primary Drinking Water Regulations (NPDWR), which proposes Maximum Contaminant Levels (MCLs) for six PFAS in drinking water. PFOA and PFOS as individual contaminants, and PFHxS, PFNA, PFBS, and HFPO-DA (commonly referred to as GenX Chemicals) as a PFAS mixture. The NPDWR establishes a concentration of 4 ppt for PFOS and PFOA and a hazard index of 1.0 for GenX, PFNA, PFHxS, and PFBS.
- Bold italicized font** indicates an exceedance of the hazard index (H.I). **Bold red** indicates that the parameter was detected above the NPDWR value of 4 ng/L.
- The Hazard Index (H.I) was calculated for each well using the calculation published in the USEPA's "Understanding the PFAS National Primary Drinking Water Proposal Hazard Index Fact Sheet."
- < = Analytes were not present at concentrations above the laboratory detection limit.
- NS - No Standard

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS - VOCs**  
**Klinke's Clothing Care Corporation**  
**4518 Monona Drive**  
**Madison, Wisconsin**

Sample Date Collected By	Wis. Adm. Code NR 140		Units	MW-1	MW-2	MW-16	MW-18	MW-22
	PAL	ES		8/22/2023	8/22/2023	8/22/2023	8/22/2023	8/22/2023
				GZA	GZA	GZA	GZA	GZA
<b>VOCs</b>								
1,1,1,2-Tetrachloroethane	7	70	µg/l	<0.36	<0.71	<0.36	<0.36	<0.36
1,1,1-Trichloroethane	40	200	µg/l	<0.3	<0.61	<0.3	<0.3	<0.3
1,1,2,2-Tetrachloroethane	0.02	0.2	µg/l	<0.38	<0.76	<0.38	<0.38	<0.38
1,1,2-Trichloroethane	0.5	5	µg/l	<0.34	<0.69	<0.34	<0.34	<0.34
1,1-Dichloroethane	85	850	µg/l	<0.3	<0.59	<0.3	<0.3	<0.3
1,1-Dichloroethene	0.7	7	µg/l	<0.58	<1.2	<0.58	<0.58	<0.58
1,1-Dichloropropene	NS	NS	µg/l	<0.41	<0.82	<0.41	<0.41	<0.41
1,2,3-Trichlorobenzene	NS	NS	µg/l	<1	<2	<1	<1	<1
1,2,3-Trichloropropane	12	60	µg/l	<0.56	<1.1	<0.56	<0.56	<0.56
1,2,4-Trichlorobenzene	14	70	µg/l	<0.95	<1.9	<0.95	<0.95	<0.95
1,2,4-Trimethylbenzene	96	480	µg/l	<0.45	<0.9	<0.45	<0.45	<0.45
1,3,5-Trimethylbenzene			µg/l	<0.36	<0.71	<0.36	<0.36	<0.36
1,2-Dibromo-3-chloropropane	0.02	0.2	µg/l	<2.4	<4.7	<2.4	<2.4	<2.4
1,2-Dibromoethane (EDB)	0.005	0.05	µg/l	<0.31	<0.62	<0.31	<0.31	<0.31
1,2-Dichlorobenzene	60	600	µg/l	<0.33	<0.65	<0.33	<0.33	<0.33
1,2-Dichloroethane	0.5	5	µg/l	<0.29	<0.58	<0.29	<0.29	<0.29
1,2-Dichloropropane	0.5	5	µg/l	<0.45	<0.9	<0.45	<0.45	<0.45
1,3-Dichlorobenzene	60	600	µg/l	<0.35	<0.7	<0.35	<0.35	<0.35
1,3-Dichloropropane	NS	NS	µg/l	<0.3	<0.61	<0.3	<0.3	<0.3
1,4-Dichlorobenzene	15	75	µg/l	<0.89	<1.8	<0.89	<0.89	<0.89
2,2-Dichloropropane	NS	NS	µg/l	<0.42	<0.84	<0.42	<0.42	<0.42
2-Chlorotoluene	NS	NS	µg/l	<0.89	<1.8	<0.89	<0.89	<0.89
4-Chlorotoluene	NS	NS	µg/l	<0.89	<1.8	<0.89	<0.89	<0.89
Benzene	0.5	5	µg/l	<0.3	<0.59	<0.3	<0.3	<0.3
Bromobenzene	NS	NS	µg/l	<0.36	<0.72	<0.36	<0.36	<0.36
Bromochloromethane	NS	NS	µg/l	<0.36	<0.72	<0.36	<0.36	<0.36
Bromodichloromethane	0.06	0.6	µg/l	<0.42	<0.83	<0.42	<0.42	<0.42
Bromoform	0.44	4.4	µg/l	<0.43	<0.86	<0.43	<0.43	<0.43
Bromomethane	1	10	µg/l	<1.2	<2.4	<1.2	<1.2	<1.2
Carbon tetrachloride	0.5	5	µg/l	<0.37	<0.74	<0.37	<0.37	<0.37
Chlorobenzene	NS	NS	µg/l	<0.86	<1.7	<0.86	<0.86	<0.86
Chloroethane	80	400	µg/l	<1.4	<2.8	<1.4	<1.4	<1.4
Chloroform	0.6	6	µg/l	<0.5	<1	<0.5	<0.5	<0.5
Chloromethane	3	30	µg/l	<1.6	<3.3	<1.6	<1.6	<1.6
Dibromochloromethane	6	60	µg/l	<2.6	<5.3	<2.6	<2.6	<2.6
Dibromomethane	NS	NS	µg/l	<0.99	<2	<0.99	<0.99	<0.99
Dichlorodifluoromethane	200	1000	µg/l	<0.46	<0.91	<0.46	<0.46	<0.46
Diisopropyl ether	NS	NS	µg/l	<1.1	<2.2	<1.1	<1.1	<1.1
Ethylbenzene	140	700	µg/l	<0.33	<0.65	<0.33	<0.33	<0.33
Hexachloro-1,3-butadiene	NS	NS	µg/l	<2.7	<5.5	<2.7	<2.7	<2.7
Isopropylbenzene (Cumene)	NS	NS	µg/l	<1	<2	<1	<1	<1
Methyl-tert-butyl ether	12	60	µg/l	<1.1	<2.3	<1.1	<1.1	<1.1

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS - VOCs**  
**Klinke's Clothing Care Corporation**  
**4518 Monona Drive**  
**Madison, Wisconsin**

Sample Date Collected By	Wis. Adm. Code NR 140		Units	MW-1	MW-2	MW-16	MW-18	MW-22
	PAL	ES		8/22/2023	8/22/2023	8/22/2023	8/22/2023	8/22/2023
				GZA	GZA	GZA	GZA	GZA
Methylene Chloride	0.5	5	µg/l	<0.32	<0.64	<0.32	<0.32	<0.32
Naphthalene	10	100	µg/l	<1.9	<3.8	<1.9	<1.9	<1.9
Styrene	10	100	µg/l	<0.36	<0.71	<0.36	<0.36	<0.36
Tetrachloroethene	0.5	5	µg/l	<b>54.6</b>	<b>141</b>	<b>1.4</b>	<b>30.4</b>	<b>29.5</b>
Toluene	160	800	µg/l	<0.29	<0.58	<0.29	<0.29	<0.29
Trichloroethene	0.5	5	µg/l	<b>15.2</b>	<b>9</b>	<0.32	<0.32	<b>1</b>
Trichlorofluoromethane	NS	NS	µg/l	<0.42	<0.84	<0.42	<0.42	<0.42
Vinyl chloride	0.02	0.2	µg/l	<b>26.9</b>	<b>2.9</b>	<0.17	<0.17	<0.17
Xylene (Total)	7	70	µg/l	<1	<2.1	<1	<1	<1
cis-1,2-Dichloroethene	7	70	µg/l	<b>123</b>	1.8J	<0.47	<0.47	2.6
cis-1,3-Dichloropropene	0.04	0.4	µg/l	<0.24	<0.47	<0.24	<0.24	<0.24
m&p-Xylene	400	2000	µg/l	<0.7	<1.4	<0.7	<0.7	<0.7
o-Xylene			µg/l	<0.35	<0.7	<0.35	<0.35	<0.35
n-Butylbenzene	NS	NS	µg/l	<0.86	<1.7	<0.86	<0.86	<0.86
n-Propylbenzene	NS	NS	µg/l	<0.35	<0.69	<0.35	<0.35	<0.35
p-Isopropyltoluene	NS	NS	µg/l	<1	<2.1	<1	<1	<1
sec-Butylbenzene	NS	NS	µg/l	<0.42	<0.85	<0.42	<0.42	<0.42
tert-Butylbenzene	NS	NS	µg/l	<0.59	<1.2	<0.59	<0.59	<0.59
trans-1,2-Dichloroethene	20	100	µg/l	1.4	<1.1	<0.53	<0.53	<0.53
trans-1,3-Dichloropropene	0.04	0.4	µg/l	<0.27	<0.53	<0.27	<0.27	<0.27

**Notes:**

1. Samples were collected by GZA GeoEnvironmental, Inc. (GZA) and submitted to Pace® Analytical Services for analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260.
2. Results are presented in micrograms per liter (µg/l).
3. Results are compared to Wisconsin Administrative Code (Wis. Adm. Code) Chapter NR 140 Enforcement Standards (ESs) and Preventive Action Limits (PALs). **Bold, red font** indicates the parameter was detected above the ES and **Bold italicized font** indicates the parameter was detected above the PAL.
4. J = Estimated value. The analyte was detected at a concentration between the limit of detection (LOD) and limit of quantification (LOQ).
5. "NS" = No Standard available under Wis. Adm. Code NR 140.



**ATTACHMENT 1**

**Limitations**





## LIMITATIONS

### STANDARD OF CARE

1. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this Report may be found at the subject location(s).
2. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.
3. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

### SUBSURFACE CONDITIONS

4. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this Report.
5. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this Report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

### COMPLIANCE WITH CODES AND REGULATIONS

6. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

### SCREENING AND ANALYTICAL TESTING

7. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the Report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.
8. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
9. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.



#### **INTERPRETATION OF DATA**

10. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

#### **ADDITIONAL INFORMATION**

11. In the event that the Client or others authorized to use this Report obtain additional information on environmental or hazardous waste issues at the Site not contained in this Report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this Report.

#### **ADDITIONAL SERVICES**

12. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.



**ATTACHMENT 2**

**Laboratory Analytical Reports**



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## Report of Analysis

**GZA GeoEnvironmental, Inc.**  
17975 West Sarah Lane, Suite 100  
Brookfield, WI 53045  
Attention: Sheryl Stephenson

Project Name: Klinke Cleaners (Monona)

Project Number: 20.0158385.00

Lot Number: **YG01006**

Date Completed: 07/17/2023

*Kathy Smith*

07/18/2023 1:01 PM

Approved and released by:  
Project Manager II: **Kathy E. Smith**



The electronic signature above is the equivalent of a handwritten signature.  
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

# PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

## Case Narrative GZA GeoEnvironmental, Inc. Lot Number: YG01006

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the Pace Quality Assurance Management Plan (QAMP), applicable Shealy standard operating procedures (SOPs), the 2003 NELAC standard, and Shealy policies. Additionally, the DoD QSM version 5.4 has been followed for these samples, and specifically Table B-15 was followed for all PFAS samples. Any exceptions to the QAMP, SOPs, NELAC standards, the DoD QSM, or policies are qualified on the results page or discussed below.

All QC associated with these samples were compliant with DOD QSM 5.4 table B-15 and our PFAS SOP.

Correction factors (CF) are used to calculate the original sample concentration. The CF is the inverse of the concentration factor (sample volume / extract final volume) times the dilution factor (DF). The CF is calculated as follows:

$$CF = DF * FV / Vo$$

FV is volume of extract (mL)

Vo is initial sample volume (mL)

DF is dilution factor. For undiluted analysis, DF = 1.

Sample concentration for aqueous samples:

$$\text{Concentration (ng/L)} = C_s * CF,$$

$$C_s = \frac{\left( \frac{A_s \times C_{is}}{A_{is}} \right) - B}{M1}$$

Where

$C_s$  is on column concentration of target analyte in the sample (ng/L)

$C_{is}$  is concentration of internal standard in the sample (ng/L)

$A_s$  is peak response of target analyte in the sample

$A_{is}$  is peak response of internal standard in the sample

M1 is the average RF from ICAL or the slope from linear regression ICAL

B is the y-intercept from the ICAL

# PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation: Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, E. coli and Total coliforms SM 9223 B-2004, Solid Chemical Material: TOC Walkley-Black, Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Fecal Coliform Colilert-18, PFAS by Isotope Dilution SOP.

Pace is a DoD/DoE and TNI accredited laboratory; however, Pace is not accredited for PFAS Direct Aqueous Injection or Method D8421.

If you have any questions regarding this report, please contact the Pace Project Manager listed on the cover page.

## PFAS

Samples YG01006-001, YG01006-002, YG01006-003 required centrifugation prior to extraction, due to excessive solids present in the samples. Centrifugation was performed following the PFAS Aqueous Centrifuge Protocol; samples were spiked with Surrogate (SUR; Extracted Internal Standard/EIS) and shaken vigorously before being poured into a conical bottle and centrifuged. The centrifuged aqueous sample was decanted back into the original sample bottle, off of the condensed solids remaining in the centrifuge bottle. Original sample bottle was rinsed as normal and centrifuge bottle was rinsed with 4mL of MeOH. Centrifuge bottle rinsate was added to the elution. Samples concentrated to <5mL and reconstituted to 5mL using MeOH by transfer pipet.

Surrogate recovery for the following samples was outside the upper control limit: YG01006-001, YG01006-002. These samples did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

# PACE ANALYTICAL SERVICES, LLC

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**Sample Summary**  
**GZA GeoEnvironmental, Inc.**  
**Lot Number: YG01006**  
**Project Name: Klinke Cleaners (Monona)**  
**Project Number: 20.0158385.00**

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<b>Sample Number</b>	<b>Sample ID</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>
001	MW-3	Aqueous	06/29/2023 1133	07/01/2023
002	MW-2	Aqueous	06/30/2023 1000	07/01/2023
003	MW-18	Aqueous	06/30/2023 1200	07/01/2023

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(3 samples)

# PACE ANALYTICAL SERVICES, LLC

**Detection Summary**  
**GZA GeoEnvironmental, Inc.**  
**Lot Number: YG01006**  
**Project Name: Klinke Cleaners (Monona)**  
**Project Number: 20.0158385.00**

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-3	Aqueous	PFBS	PFAS by ID	7.7		ng/L	6
001	MW-3	Aqueous	PFPeS	PFAS by ID	2.2	J	ng/L	6
001	MW-3	Aqueous	PFHxS	PFAS by ID	34		ng/L	6
001	MW-3	Aqueous	PFBA	PFAS by ID	19		ng/L	6
001	MW-3	Aqueous	PFHpA	PFAS by ID	11		ng/L	6
001	MW-3	Aqueous	PFHxA	PFAS by ID	13		ng/L	6
001	MW-3	Aqueous	PFOA	PFAS by ID	13		ng/L	6
001	MW-3	Aqueous	PFPeA	PFAS by ID	11		ng/L	6
002	MW-2	Aqueous	PFBS	PFAS by ID	9.3		ng/L	8
002	MW-2	Aqueous	PFPeS	PFAS by ID	3.3	J	ng/L	8
002	MW-2	Aqueous	PFHxS	PFAS by ID	4.3		ng/L	8
002	MW-2	Aqueous	PFBA	PFAS by ID	37		ng/L	8
002	MW-2	Aqueous	PFHxA	PFAS by ID	9.7		ng/L	8
002	MW-2	Aqueous	PFOA	PFAS by ID	2.6	J	ng/L	8
002	MW-2	Aqueous	PFPeA	PFAS by ID	13		ng/L	8
003	MW-18	Aqueous	PFBS	PFAS by ID	2.6	J	ng/L	10
003	MW-18	Aqueous	PFHxS	PFAS by ID	4.3		ng/L	10
003	MW-18	Aqueous	PFBA	PFAS by ID	16		ng/L	10
003	MW-18	Aqueous	PFHpA	PFAS by ID	1.7	J	ng/L	10
003	MW-18	Aqueous	PFHxA	PFAS by ID	3.3	J	ng/L	10
003	MW-18	Aqueous	PFOA	PFAS by ID	2.6	J	ng/L	10
003	MW-18	Aqueous	PFPeA	PFAS by ID	3.5	J	ng/L	10

(22 detections)



# PFAS by LC/MS/MS

Client: **GZA GeoEnvironmental, Inc.**

Laboratory ID: **YG01006-001**

Description: **MW-3**

Matrix: **Aqueous**

Date Sampled: **06/29/2023 1133**

Project Name: **Klinke Cleaners (Monona)**

Date Received: **07/01/2023**

Project Number: **20.0158385.00**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	07/13/2023 2044	ARC2	07/12/2023 1930	79796

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	MDL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	0.42	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	0.58	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.4	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	Q	7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	Q	7.0	0.77	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	0.42	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	0.66	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	0.83	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	1.1	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	0.82	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.1	ng/L	1
<b>Perfluoro-1-butanesulfonic acid (PFBS)</b>	<b>375-73-5</b>	<b>PFAS by ID SOP</b>	<b>7.7</b>		<b>3.5</b>	<b>0.36</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.68	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.44	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.62	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.54	ng/L	1
<b>Perfluoro-1-pentanesulfonic acid (PFPeS)</b>	<b>2706-91-4</b>	<b>PFAS by ID SOP</b>	<b>2.2</b>	J	<b>3.5</b>	<b>0.52</b>	<b>ng/L</b>	<b>1</b>
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	0.92	ng/L	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>355-46-4</b>	<b>PFAS by ID SOP</b>	<b>34</b>		<b>3.5</b>	<b>0.48</b>	<b>ng/L</b>	<b>1</b>
<b>Perfluoro-n-butanoic acid (PFBA)</b>	<b>375-22-4</b>	<b>PFAS by ID SOP</b>	<b>19</b>		<b>3.5</b>	<b>0.53</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.46	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.41	ng/L	1
<b>Perfluoro-n-heptanoic acid (PFHpA)</b>	<b>375-85-9</b>	<b>PFAS by ID SOP</b>	<b>11</b>		<b>3.5</b>	<b>0.39</b>	<b>ng/L</b>	<b>1</b>
<b>Perfluoro-n-hexanoic acid (PFHxA)</b>	<b>307-24-4</b>	<b>PFAS by ID SOP</b>	<b>13</b>		<b>3.5</b>	<b>0.60</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.40	ng/L	1
<b>Perfluoro-n-octanoic acid (PFOA)</b>	<b>335-67-1</b>	<b>PFAS by ID SOP</b>	<b>13</b>		<b>3.5</b>	<b>0.73</b>	<b>ng/L</b>	<b>1</b>
<b>Perfluoro-n-pentanoic acid (PFPeA)</b>	<b>2706-90-3</b>	<b>PFAS by ID SOP</b>	<b>11</b>		<b>3.5</b>	<b>0.48</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.52	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.46	ng/L	1
Perfluoro-n-undecanoic acid (PFUDA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.55	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.5	1.8	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS	N	223	25-150
13C2_6:2FTS	N	166	25-150
13C2_8:2FTS		101	25-150
13C2_PFDaA		84	25-150
13C2_PFTeDA		66	25-150
13C3_PFBS		87	25-150
13C3_PFHxS		89	25-150
13C3-HFPO-DA		89	25-150
13C4_PFBA		82	25-150

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit      Q = Surrogate failure  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL      L = LCS/LCSD failure  
 H = Out of holding time      W = Reported on wet weight basis      S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)  
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

# PFAS by LC/MS/MS

Client: <b>GZA GeoEnvironmental, Inc.</b>	Laboratory ID: <b>YG01006-001</b>
Description: <b>MW-3</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>06/29/2023 1133</b>	Project Name: <b>Klinke Cleaners (Monona)</b>
Date Received: <b>07/01/2023</b>	Project Number: <b>20.0158385.00</b>

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		89	25-150
13C5_PFHxA		103	25-150
13C5_PFPeA		89	25-150
13C6_PFDA		95	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		93	25-150
13C8_PFOS		88	25-150
13C8_PFOSA		93	10-150
13C9_PFNA		94	25-150
d-EtFOSA		59	10-150
d5-EtFOSAA		93	25-150
d9-EtFOSE		68	10-150
d-MeFOSA		60	10-150
d3-MeFOSAA		86	25-150
d7-MeFOSE		72	10-150

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit      Q = Surrogate failure  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL      L = LCS/LCSD failure  
 H = Out of holding time      W = Reported on wet weight basis      S = MS/MSD failure

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# PFAS by LC/MS/MS

Client: **GZA GeoEnvironmental, Inc.**

Laboratory ID: **YG01006-002**

Description: **MW-2**

Matrix: **Aqueous**

Date Sampled: **06/30/2023 1000**

Project Name: **Klinke Cleaners (Monona)**

Date Received: **07/01/2023**

Project Number: **20.0158385.00**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	07/13/2023 2055	ARC2	07/12/2023 1930	79796

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	MDL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.7	0.46	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.7	0.64	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.7	1.5	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	Q	7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	Q	7.7	0.84	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.7	2.0	ng/L	1
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.7	0.46	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.7	1.3	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.7	0.72	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.7	0.91	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	1.2	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.7	0.89	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.7	1.2	ng/L	1
<b>Perfluoro-1-butanesulfonic acid (PFBS)</b>	<b>375-73-5</b>	<b>PFAS by ID SOP</b>	<b>9.3</b>		<b>3.8</b>	<b>0.40</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.75	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.48	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.68	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.8	0.59	ng/L	1
<b>Perfluoro-1-pentanesulfonic acid (PFPeS)</b>	<b>2706-91-4</b>	<b>PFAS by ID SOP</b>	<b>3.3</b>	J	<b>3.8</b>	<b>0.57</b>	<b>ng/L</b>	<b>1</b>
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.7	1.0	ng/L	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>355-46-4</b>	<b>PFAS by ID SOP</b>	<b>4.3</b>		<b>3.8</b>	<b>0.53</b>	<b>ng/L</b>	<b>1</b>
<b>Perfluoro-n-butanoic acid (PFBA)</b>	<b>375-22-4</b>	<b>PFAS by ID SOP</b>	<b>37</b>		<b>3.8</b>	<b>0.57</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.50	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.45	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.43	ng/L	1
<b>Perfluoro-n-hexanoic acid (PFHxA)</b>	<b>307-24-4</b>	<b>PFAS by ID SOP</b>	<b>9.7</b>		<b>3.8</b>	<b>0.66</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.44	ng/L	1
<b>Perfluoro-n-octanoic acid (PFOA)</b>	<b>335-67-1</b>	<b>PFAS by ID SOP</b>	<b>2.6</b>	J	<b>3.8</b>	<b>0.79</b>	<b>ng/L</b>	<b>1</b>
<b>Perfluoro-n-pentanoic acid (PFPeA)</b>	<b>2706-90-3</b>	<b>PFAS by ID SOP</b>	<b>13</b>		<b>3.8</b>	<b>0.52</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.57	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.51	ng/L	1
Perfluoro-n-undecanoic acid (PFUDA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.60	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.8	1.9	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS	N	242	25-150
13C2_6:2FTS	N	261	25-150
13C2_8:2FTS		135	25-150
13C2_PFDaA		80	25-150
13C2_PFTeDA		44	25-150
13C3_PFBS		79	25-150
13C3_PFHxS		89	25-150
13C3-HFPO-DA		74	25-150
13C4_PFBA		38	25-150

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit      Q = Surrogate failure  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL      L = LCS/LCSD failure  
 H = Out of holding time      W = Reported on wet weight basis      S = MS/MSD failure

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# PFAS by LC/MS/MS

Client: <b>GZA GeoEnvironmental, Inc.</b>	Laboratory ID: <b>YG01006-002</b>
Description: <b>MW-2</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>06/30/2023 1000</b>	Project Name: <b>Klinke Cleaners (Monona)</b>
Date Received: <b>07/01/2023</b>	Project Number: <b>20.0158385.00</b>

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		69	25-150
13C5_PFHxA		79	25-150
13C5_PFPeA		60	25-150
13C6_PFDA		101	25-150
13C7_PFUdA		87	25-150
13C8_PFOA		89	25-150
13C8_PFOS		88	25-150
13C8_PFOSA		85	10-150
13C9_PFNA		100	25-150
d-EtFOSA		38	10-150
d5-EtFOSAA		100	25-150
d9-EtFOSE		61	10-150
d-MeFOSA		49	10-150
d3-MeFOSAA		95	25-150
d7-MeFOSE		66	10-150

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LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit      Q = Surrogate failure  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL      L = LCS/LCSD failure  
 H = Out of holding time      W = Reported on wet weight basis      S = MS/MSD failure

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# PFAS by LC/MS/MS

Client: <b>GZA GeoEnvironmental, Inc.</b>	Laboratory ID: <b>YG01006-003</b>
Description: <b>MW-18</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>06/30/2023 1200</b>	Project Name: <b>Klinke Cleaners (Monona)</b>
Date Received: <b>07/01/2023</b>	Project Number: <b>20.0158385.00</b>

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	07/13/2023 2105	ARC2	07/12/2023 1930	79796

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	MDL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	0.45	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	0.61	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.5	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	0.81	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	0.45	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.3	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	0.69	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	0.88	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	1.2	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	0.86	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.2	ng/L	1
<b>Perfluoro-1-butanesulfonic acid (PFBS)</b>	<b>375-73-5</b>	<b>PFAS by ID SOP</b>	<b>2.6</b>	<b>J</b>	<b>3.7</b>	<b>0.38</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.72	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.46	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.66	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.57	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.55	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	0.97	ng/L	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>355-46-4</b>	<b>PFAS by ID SOP</b>	<b>4.3</b>		<b>3.7</b>	<b>0.51</b>	<b>ng/L</b>	<b>1</b>
<b>Perfluoro-n-butanoic acid (PFBA)</b>	<b>375-22-4</b>	<b>PFAS by ID SOP</b>	<b>16</b>		<b>3.7</b>	<b>0.56</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.49	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.44	ng/L	1
<b>Perfluoro-n-heptanoic acid (PFHpA)</b>	<b>375-85-9</b>	<b>PFAS by ID SOP</b>	<b>1.7</b>	<b>J</b>	<b>3.7</b>	<b>0.41</b>	<b>ng/L</b>	<b>1</b>
<b>Perfluoro-n-hexanoic acid (PFHxA)</b>	<b>307-24-4</b>	<b>PFAS by ID SOP</b>	<b>3.3</b>	<b>J</b>	<b>3.7</b>	<b>0.64</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.43	ng/L	1
<b>Perfluoro-n-octanoic acid (PFOA)</b>	<b>335-67-1</b>	<b>PFAS by ID SOP</b>	<b>2.6</b>	<b>J</b>	<b>3.7</b>	<b>0.77</b>	<b>ng/L</b>	<b>1</b>
<b>Perfluoro-n-pentanoic acid (PFPeA)</b>	<b>2706-90-3</b>	<b>PFAS by ID SOP</b>	<b>3.5</b>	<b>J</b>	<b>3.7</b>	<b>0.50</b>	<b>ng/L</b>	<b>1</b>
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.56	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.49	ng/L	1
Perfluoro-n-undecanoic acid (PFUDA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.58	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.7	1.9	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		123	25-150
13C2_6:2FTS		136	25-150
13C2_8:2FTS		90	25-150
13C2_PFDaA		89	25-150
13C2_PFTeDA		72	25-150
13C3_PFBS		97	25-150
13C3_PFHxS		96	25-150
13C3-HFPO-DA		94	25-150
13C4_PFBA		98	25-150

LOQ = Limit of Quantitation      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      DL = Detection Limit      Q = Surrogate failure  
 ND = Not detected at or above the DL      N = Recovery is out of criteria      P = The RPD between two GC columns exceeds 40%      J = Estimated result < LOQ and ≥ DL      L = LCS/LCSD failure  
 H = Out of holding time      W = Reported on wet weight basis      S = MS/MSD failure

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# PFAS by LC/MS/MS

Client: <b>GZA GeoEnvironmental, Inc.</b>	Laboratory ID: <b>YG01006-003</b>
Description: <b>MW-18</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>06/30/2023 1200</b>	Project Name: <b>Klinke Cleaners (Monona)</b>
Date Received: <b>07/01/2023</b>	Project Number: <b>20.0158385.00</b>

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		91	25-150
13C5_PFHxA		93	25-150
13C5_PFPeA		92	25-150
13C6_PFDA		95	25-150
13C7_PFUdA		86	25-150
13C8_PFOA		93	25-150
13C8_PFOS		88	25-150
13C8_PFOSA		85	10-150
13C9_PFNA		91	25-150
d-EtFOSA		50	10-150
d5-EtFOSAA		87	25-150
d9-EtFOSE		63	10-150
d-MeFOSA		58	10-150
d3-MeFOSAA		88	25-150
d7-MeFOSE		68	10-150

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LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

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## QC Summary

# PFAS by LC/MS/MS - MB

Sample ID: YQ79796-001

Matrix: Aqueous

Batch: 79796

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 07/12/2023 1930

Parameter	Result	Q	Dil	LOQ	MDL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	0.48	ng/L	07/13/2023 2023
11CI-PF3OUdS	ND		1	8.0	0.66	ng/L	07/13/2023 2023
8:2 FTS	ND		1	8.0	1.6	ng/L	07/13/2023 2023
6:2 FTS	ND		1	8.0	2.0	ng/L	07/13/2023 2023
4:2 FTS	ND		1	8.0	0.87	ng/L	07/13/2023 2023
GenX	ND		1	8.0	2.1	ng/L	07/13/2023 2023
ADONA	ND		1	8.0	0.48	ng/L	07/13/2023 2023
EtFOSA	ND		1	8.0	1.4	ng/L	07/13/2023 2023
EtFOSAA	ND		1	8.0	0.75	ng/L	07/13/2023 2023
EtFOSE	ND		1	8.0	0.95	ng/L	07/13/2023 2023
MeFOSA	ND		1	16	1.3	ng/L	07/13/2023 2023
MeFOSAA	ND		1	8.0	0.93	ng/L	07/13/2023 2023
MeFOSE	ND		1	8.0	1.3	ng/L	07/13/2023 2023
PFBS	ND		1	4.0	0.41	ng/L	07/13/2023 2023
PFDS	ND		1	4.0	0.78	ng/L	07/13/2023 2023
PFHpS	ND		1	4.0	0.50	ng/L	07/13/2023 2023
PFNS	ND		1	4.0	0.71	ng/L	07/13/2023 2023
PFOSA	ND		1	4.0	0.61	ng/L	07/13/2023 2023
PFPeS	ND		1	4.0	0.59	ng/L	07/13/2023 2023
PFDOS	ND		1	8.0	1.0	ng/L	07/13/2023 2023
PFHxS	ND		1	4.0	0.55	ng/L	07/13/2023 2023
PFBA	ND		1	4.0	0.60	ng/L	07/13/2023 2023
PFDA	ND		1	4.0	0.52	ng/L	07/13/2023 2023
PFDaA	ND		1	4.0	0.47	ng/L	07/13/2023 2023
PFHpA	ND		1	4.0	0.45	ng/L	07/13/2023 2023
PFHxA	ND		1	4.0	0.69	ng/L	07/13/2023 2023
PFNA	ND		1	4.0	0.46	ng/L	07/13/2023 2023
PFOA	ND		1	4.0	0.83	ng/L	07/13/2023 2023
PFPeA	ND		1	4.0	0.54	ng/L	07/13/2023 2023
PFTeDA	ND		1	4.0	0.60	ng/L	07/13/2023 2023
PFTTrDA	ND		1	4.0	0.53	ng/L	07/13/2023 2023
PFUdA	ND		1	4.0	0.63	ng/L	07/13/2023 2023
PFOS	ND		1	4.0	2.0	ng/L	07/13/2023 2023

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		103	25-150
13C2_6:2FTS		121	25-150
13C2_8:2FTS		96	25-150
13C2_PFDaA		96	25-150
13C2_PFTeDA		85	25-150
13C3_PFBS		96	25-150
13C3_PFHxS		91	25-150
13C3-HFPO-DA		94	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

\* = RSD is out of criteria

+ = RPD is out of criteria

**Note: Calculations are performed before rounding to avoid round-off errors in calculated results**



# PFAS by LC/MS/MS - MB

Sample ID: YQ79796-001

Matrix: Aqueous

Batch: 79796

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 07/12/2023 1930

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBAs		90	25-150
13C4_PFHpA		91	25-150
13C5_PFHxA		94	25-150
13C5_PFPeA		90	25-150
13C6_PFDA		97	25-150
13C7_PFUdA		87	25-150
13C8_PFOA		93	25-150
13C8_PFOS		93	25-150
13C8_PFOSA		85	10-150
13C9_PFNA		86	25-150
d-EtFOSA		42	10-150
d5-EtFOSAA		99	25-150
d9-EtFOSE		77	10-150
d-MeFOSA		40	10-150
d3-MeFOSAA		92	25-150
d7-MeFOSE		83	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

\* = RSD is out of criteria

+ = RPD is out of criteria

**Note: Calculations are performed before rounding to avoid round-off errors in calculated results**

# PFAS by LC/MS/MS - LCS

Sample ID: YQ79796-002

Matrix: Aqueous

Batch: 79796

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 07/12/2023 1930

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9CI-PF3ONS	15	17		1	111	50-150	07/13/2023 2033
11CI-PF3OUdS	15	15		1	100	50-150	07/13/2023 2033
8:2 FTS	15	18		1	114	50-150	07/13/2023 2033
6:2 FTS	15	17		1	114	50-150	07/13/2023 2033
4:2 FTS	15	17		1	114	50-150	07/13/2023 2033
GenX	32	35		1	108	50-150	07/13/2023 2033
ADONA	15	17		1	113	50-150	07/13/2023 2033
EtFOSA	16	19		1	118	50-150	07/13/2023 2033
EtFOSAA	16	17		1	109	50-150	07/13/2023 2033
EtFOSE	16	19		1	116	50-150	07/13/2023 2033
MeFOSA	16	21		1	134	50-150	07/13/2023 2033
MeFOSAA	16	17		1	105	50-150	07/13/2023 2033
MeFOSE	16	19		1	117	50-150	07/13/2023 2033
PFBS	14	16		1	112	50-150	07/13/2023 2033
PFDS	15	17		1	110	50-150	07/13/2023 2033
PFHpS	15	17		1	112	50-150	07/13/2023 2033
PFNS	15	17		1	112	50-150	07/13/2023 2033
PFOSA	16	19		1	117	50-150	07/13/2023 2033
PFPeS	15	17		1	116	50-150	07/13/2023 2033
PFDOS	15	12		1	77	50-150	07/13/2023 2033
PFHxS	15	16		1	112	50-150	07/13/2023 2033
PFBA	16	19		1	120	50-150	07/13/2023 2033
PFDA	16	18		1	110	50-150	07/13/2023 2033
PFDoA	16	17		1	107	50-150	07/13/2023 2033
PFHpA	16	19		1	117	50-150	07/13/2023 2033
PFHxA	16	19		1	116	50-150	07/13/2023 2033
PFNA	16	18		1	113	50-150	07/13/2023 2033
PFOA	16	17		1	108	50-150	07/13/2023 2033
PFPeA	16	18		1	113	50-150	07/13/2023 2033
PFTeDA	16	17		1	105	50-150	07/13/2023 2033
PFTTrDA	16	16		1	101	50-150	07/13/2023 2033
PFUdA	16	17		1	108	50-150	07/13/2023 2033
PFOS	15	17		1	115	50-150	07/13/2023 2033
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		95	25-150				
13C2_6:2FTS	N	151	25-150				
13C2_8:2FTS		81	25-150				
13C2_PFDoA		88	25-150				
13C2_PFTeDA		58	25-150				
13C3_PFBS		86	25-150				
13C3_PFHxS		88	25-150				
13C3-HFPO-DA		88	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

\* = RSD is out of criteria

+ = RPD is out of criteria

**Note: Calculations are performed before rounding to avoid round-off errors in calculated results**

## PFAS by LC/MS/MS - LCS

Sample ID: YQ79796-002

Matrix: Aqueous

Batch: 79796

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 07/12/2023 1930

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBFA		81	25-150
13C4_PFHpA		87	25-150
13C5_PFHxA		84	25-150
13C5_PFPeA		86	25-150
13C6_PFDA		91	25-150
13C7_PFUdA		82	25-150
13C8_PFOA		101	25-150
13C8_PFOS		82	25-150
13C8_PFOSA		82	10-150
13C9_PFNA		85	25-150
d-EtFOSA		37	10-150
d5-EtFOSAA		86	25-150
d9-EtFOSE		68	10-150
d-MeFOSA		35	10-150
d3-MeFOSAA		84	25-150
d7-MeFOSE		71	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

\* = RSD is out of criteria

+ = RPD is out of criteria

**Note: Calculations are performed before rounding to avoid round-off errors in calculated results**

# PFAS by LC/MS/MS - MS

Sample ID: YG01006-003MS

Matrix: Aqueous

Batch: 79796

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 07/12/2023 1930

Parameter	Sample Amount (ng/L)	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9CI-PF3ONS	ND	13	14		1	106	50-150	07/13/2023 2116
11CI-PF3OUdS	ND	14	12		1	86	50-150	07/13/2023 2116
8:2 FTS	ND	14	16		1	114	50-150	07/13/2023 2116
6:2 FTS	ND	14	14		1	103	50-150	07/13/2023 2116
4:2 FTS	ND	13	14		1	101	50-150	07/13/2023 2116
GenX	ND	29	29		1	101	50-150	07/13/2023 2116
ADONA	ND	14	14		1	106	50-150	07/13/2023 2116
EtFOSA	ND	14	15		1	106	50-150	07/13/2023 2116
EtFOSAA	ND	14	16		1	110	50-150	07/13/2023 2116
EtFOSE	ND	14	18		1	128	50-150	07/13/2023 2116
MeFOSA	ND	14	20		1	136	50-150	07/13/2023 2116
MeFOSAA	ND	14	14		1	98	50-150	07/13/2023 2116
MeFOSE	ND	14	17		1	116	50-150	07/13/2023 2116
PFBS	2.6	13	15		1	94	50-150	07/13/2023 2116
PFDS	ND	14	14		1	101	50-150	07/13/2023 2116
PFHpS	ND	14	16		1	115	50-150	07/13/2023 2116
PFNS	ND	14	14		1	102	50-150	07/13/2023 2116
PFOSA	ND	14	16		1	111	50-150	07/13/2023 2116
PFPeS	ND	13	15		1	108	50-150	07/13/2023 2116
PFDOS	ND	14	12		1	90	50-150	07/13/2023 2116
PFHxS	4.3	13	18		1	105	50-150	07/13/2023 2116
PFBA	16	14	30		1	103	50-150	07/13/2023 2116
PFDA	ND	14	17		1	116	50-150	07/13/2023 2116
PFDaA	ND	14	16		1	110	50-150	07/13/2023 2116
PFHpA	1.7	14	17		1	108	50-150	07/13/2023 2116
PFHxA	3.3	14	18		1	105	50-150	07/13/2023 2116
PFNA	ND	14	16		1	111	50-150	07/13/2023 2116
PFOA	2.6	14	19		1	111	50-150	07/13/2023 2116
PFPeA	3.5	14	19		1	106	50-150	07/13/2023 2116
PFTeDA	ND	14	16		1	110	50-150	07/13/2023 2116
PFTrDA	ND	14	17		1	118	50-150	07/13/2023 2116
PFUdA	ND	14	15		1	106	50-150	07/13/2023 2116
PFOS	ND	13	14		1	106	50-150	07/13/2023 2116

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		112	25-150
13C2_6:2FTS		146	25-150
13C2_8:2FTS		91	25-150
13C2_PFDaA		92	25-150
13C2_PFTeDA		81	25-150
13C3_PFBs		98	25-150
13C3_PFHxS		91	25-150
13C3-HFPO-DA		97	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

\* = RSD is out of criteria

+ = RPD is out of criteria

**Note: Calculations are performed before rounding to avoid round-off errors in calculated results**

# PFAS by LC/MS/MS - MS

Sample ID: YG01006-003MS

Matrix: Aqueous

Batch: 79796

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 07/12/2023 1930

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBAs		102	25-150
13C4_PFHpA		90	25-150
13C5_PFHxA		93	25-150
13C5_PFPeA		93	25-150
13C6_PFDA		91	25-150
13C7_PFUdA		87	25-150
13C8_PFOA		96	25-150
13C8_PFOS		88	25-150
13C8_PFOSA		89	10-150
13C9_PFNA		92	25-150
d-EtFOSA		56	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		63	10-150
d-MeFOSA		54	10-150
d3-MeFOSAA		93	25-150
d7-MeFOSE		73	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

\* = RSD is out of criteria

+ = RPD is out of criteria

**Note: Calculations are performed before rounding to avoid round-off errors in calculated results**

**Chain of Custody  
and  
Miscellaneous Documents**

# PACE ANALYTICAL SERVICES, LLC

**Pace Analytical Services, LLC.**  
 106 Vantage Point Drive  
 West Columbia, South Carolina 29172  
 Telephone No. (803) 791-9700 Fax No. (803) 791-9111  
 www.pacelabs.com

**Chain of Custody  
 Record**

**Number**

Client: <b>GZA GeoEnvironmental</b> Address: <b>17475 W Sarah Lane</b> City: <b>Brookfield WI 53085</b> Project Name: <b>2000 Klinkle Cleaners (Monona)</b> Project Number: <b>20-0158385-00</b>		Report to Contact: <b>Sheryl Stephenson</b> Sampler's Signature: <i>[Signature]</i> Printed Name: <b>Sheryl Stephenson</b>		Telephone No. / E-mail: Analysis (Attach list if more space is needed):		Quote No.
P.O. No.:		Matrix:		No. of Containers by Preservative Type:		Page <b>1</b> of <b>1</b> YG01006 KB#2
Collection Date(s)	Collection Time (military)	Aqueous Non-Aqueous Solid	Unpres. H2SO4 HNO3 HCl NaOH 5036 M Filtered	Possible Hazard Identification (List any known hazards in the remarks):		Remarks / Cooler I.D.
MW-3 6/29/23	11:33 G	X	X	X		
MW-2 6/30/23	10:00 G	X	X	X		
MW-18 6/30/23	12:00 G	X	X	X		
Turn Around Time Required (Prior lab approval required for unspiked VAT) <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Please Specify)		Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab		Possible Hazard Identification (List any known hazards in the remarks):		QC Requirements
Relinquished by: <b>GZA GeoEnvironmental</b>	Date: <b>6/30/23</b>	Time: <b>15:00</b>	Date: <b>6/30/23</b>	Time: <b>15:00</b>	Date: <b>6/30/23</b>	Time: <b>15:00</b>
Relinquished by:	Date:	Time:	Date:	Time:	Date:	Time:
Relinquished by:	Date:	Time:	Date:	Time:	Date:	Time:
Relinquished by: <b>FedEx</b>	Date: <b>7-1-23</b>	Time: <b>1045</b>	Date: <b>7-1-23</b>	Time: <b>1045</b>	Date: <b>7-1-23</b>	Time: <b>1045</b>
Note: All samples are retained for four weeks from receipt unless other arrangements are made						Transp. Blank: <b>MY / ON</b>

# PACE ANALYTICAL SERVICES, LLC

DC# Title: ENV-FRM-WCOL-0286 v02\_Samples Receipt Checklist (SRC)

Effective Date: 8/2/2022

## Sample Receipt Checklist (SRC)

Client: GZA

Cooler Inspected by/date: KMU / 07/01/2023

Lot #: YG01006

Means of receipt:		<input type="checkbox"/> Pace	<input type="checkbox"/> Client	<input type="checkbox"/> UPS	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> Other:
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?				
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?			
pH Strip ID: NA		Chlorine Strip ID: NA		Tested by: NA		
Original temperature upon receipt / Derived (Corrected) temperature upon receipt		%Solid Snap-Crip ID: NA				
1.8	/1.3	°C	NA	/NA	°C	NA /NA °C
Method: <input checked="" type="checkbox"/> Temperature Blank		<input type="checkbox"/> Against Bottles		IR Gum ID: 8		
				IR Gum Correction Factor: 0 °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice		<input type="checkbox"/> Ice Packs		<input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	3. Were all coolers received at or below 6.0°C? If no, was Project Manager notified? PM was Notified by: phone / email / face-to-face (circle one).			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		5. Were proper custody procedures (relinquished/received) followed?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		6. Were sample IDs listed on the COC and all sample containers?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		7. Was collection date & time listed on the COC and all sample containers?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		8. Did all container label information (ID, date, time) agree with the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		9. Were tests to be performed listed on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		10. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		11. Was adequate sample volume available?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		12. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		13. Were all samples containers accounted for? (No missing/excess)			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	14. Were VOA, 8015C and RSK-175 samples free of bubbles >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	15. Were all DRO/metals/nutrient samples received at a pH of < 2?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	16. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	17. Were all applicable NH <sub>4</sub> /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	18. Was the quote number listed on the container label? If yes. Quote #			
<b>Sample Preservation</b> (Must be completed for any sample(s) incorrectly preserved or with headspace.)						
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA						
Time of preservation NA. If more than one preservative is needed, please note in the comments below.						
Sample(s) NA were received with bubbles >6 mm in diameter.						
Sample(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ) with Unique ID: NA						
Comments:						





August 30, 2023

Sheryl Stephenson  
GZA GeoEnvironmental  
17975 West Sarah Lane  
Suite 100  
Brookfield, WI 53045

RE: Project: 20.0158385.01  
Pace Project No.: 40267092

Dear Sheryl Stephenson:

Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2023. 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 - Green Bay

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

Sincerely,

A handwritten signature in cursive script that reads "Christopher Hyska".

Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 20.0158385.01

Pace Project No.: 40267092

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 20.0158385.01  
Pace Project No.: 40267092

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40267092001	MW-1	Water	08/21/23 11:45	08/23/23 09:10
40267092002	MW-18	Water	08/21/23 14:10	08/23/23 09:10
40267092003	MW-2	Water	08/21/23 16:15	08/23/23 09:10
40267092004	MW-16	Water	08/22/23 10:30	08/23/23 09:10
40267092005	MW-22	Water	08/22/23 11:45	08/23/23 09:10
40267092006	TRIP BLANK	Water	08/22/23 00:00	08/23/23 09:10

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### SAMPLE ANALYTE COUNT

Project: 20.0158385.01

Pace Project No.: 40267092

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40267092001	MW-1	EPA 8260	EIB	65	PASI-G
40267092002	MW-18	EPA 8260	EIB	65	PASI-G
40267092003	MW-2	EPA 8260	EIB	65	PASI-G
40267092004	MW-16	EPA 8260	EIB	65	PASI-G
40267092005	MW-22	EPA 8260	EIB	65	PASI-G
40267092006	TRIP BLANK	EPA 8260	EIB	65	PASI-G

---

PASI-G = Pace Analytical Services - Green Bay

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### SUMMARY OF DETECTION

Project: 20.0158385.01

Pace Project No.: 40267092

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40267092001</b>	<b>MW-1</b>					
EPA 8260	Tetrachloroethene	54.6	ug/L	1.0	08/25/23 17:32	
EPA 8260	Trichloroethene	15.2	ug/L	1.0	08/25/23 17:32	
EPA 8260	Vinyl chloride	26.9	ug/L	1.0	08/25/23 17:32	
EPA 8260	cis-1,2-Dichloroethene	123	ug/L	1.0	08/25/23 17:32	
EPA 8260	trans-1,2-Dichloroethene	1.4	ug/L	1.0	08/25/23 17:32	
<b>40267092002</b>	<b>MW-18</b>					
EPA 8260	Tetrachloroethene	30.4	ug/L	1.0	08/25/23 17:51	
<b>40267092003</b>	<b>MW-2</b>					
EPA 8260	Tetrachloroethene	141	ug/L	2.0	08/25/23 19:09	
EPA 8260	Trichloroethene	9.0	ug/L	2.0	08/25/23 19:09	
EPA 8260	Vinyl chloride	2.9	ug/L	2.0	08/25/23 19:09	
EPA 8260	cis-1,2-Dichloroethene	1.8J	ug/L	2.0	08/25/23 19:09	
<b>40267092004</b>	<b>MW-16</b>					
EPA 8260	Tetrachloroethene	1.4	ug/L	1.0	08/29/23 08:20	
<b>40267092005</b>	<b>MW-22</b>					
EPA 8260	Tetrachloroethene	29.5	ug/L	1.0	08/29/23 14:08	
EPA 8260	Trichloroethene	1.0	ug/L	1.0	08/29/23 14:08	
EPA 8260	cis-1,2-Dichloroethene	2.6	ug/L	1.0	08/29/23 14:08	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

Sample: MW-1 Lab ID: 40267092001 Collected: 08/21/23 11:45 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1,2-Tetrachloroethane	<0.36	ug/L	1.0	0.36	1		08/25/23 17:32	630-20-6	
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/25/23 17:32	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		08/25/23 17:32	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	1.0	0.34	1		08/25/23 17:32	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/25/23 17:32	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/25/23 17:32	75-35-4	
1,1-Dichloropropene	<0.41	ug/L	1.0	0.41	1		08/25/23 17:32	563-58-6	
1,2,3-Trichlorobenzene	<1.0	ug/L	5.0	1.0	1		08/25/23 17:32	87-61-6	
1,2,3-Trichloropropane	<0.56	ug/L	1.0	0.56	1		08/25/23 17:32	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/25/23 17:32	120-82-1	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		08/25/23 17:32	95-63-6	
1,2-Dibromo-3-chloropropane	<2.4	ug/L	5.0	2.4	1		08/25/23 17:32	96-12-8	
1,2-Dibromoethane (EDB)	<0.31	ug/L	1.0	0.31	1		08/25/23 17:32	106-93-4	
1,2-Dichlorobenzene	<0.33	ug/L	1.0	0.33	1		08/25/23 17:32	95-50-1	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		08/25/23 17:32	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		08/25/23 17:32	78-87-5	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		08/25/23 17:32	108-67-8	
1,3-Dichlorobenzene	<0.35	ug/L	1.0	0.35	1		08/25/23 17:32	541-73-1	
1,3-Dichloropropane	<0.30	ug/L	1.0	0.30	1		08/25/23 17:32	142-28-9	
1,4-Dichlorobenzene	<0.89	ug/L	1.0	0.89	1		08/25/23 17:32	106-46-7	
2,2-Dichloropropane	<0.42	ug/L	1.0	0.42	1		08/25/23 17:32	594-20-7	
2-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/25/23 17:32	95-49-8	
4-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/25/23 17:32	106-43-4	
Benzene	<0.30	ug/L	1.0	0.30	1		08/25/23 17:32	71-43-2	
Bromobenzene	<0.36	ug/L	1.0	0.36	1		08/25/23 17:32	108-86-1	
Bromochloromethane	<0.36	ug/L	1.0	0.36	1		08/25/23 17:32	74-97-5	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		08/25/23 17:32	75-27-4	
Bromoform	<0.43	ug/L	1.0	0.43	1		08/25/23 17:32	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		08/25/23 17:32	74-83-9	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		08/25/23 17:32	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		08/25/23 17:32	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/25/23 17:32	75-00-3	
Chloroform	<0.50	ug/L	5.0	0.50	1		08/25/23 17:32	67-66-3	
Chloromethane	<1.6	ug/L	5.0	1.6	1		08/25/23 17:32	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		08/25/23 17:32	124-48-1	
Dibromomethane	<0.99	ug/L	5.0	0.99	1		08/25/23 17:32	74-95-3	
Dichlorodifluoromethane	<0.46	ug/L	5.0	0.46	1		08/25/23 17:32	75-71-8	
Diisopropyl ether	<1.1	ug/L	5.0	1.1	1		08/25/23 17:32	108-20-3	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		08/25/23 17:32	100-41-4	
Hexachloro-1,3-butadiene	<2.7	ug/L	5.0	2.7	1		08/25/23 17:32	87-68-3	
Isopropylbenzene (Cumene)	<1.0	ug/L	5.0	1.0	1		08/25/23 17:32	98-82-8	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		08/25/23 17:32	1634-04-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		08/25/23 17:32	75-09-2	
Naphthalene	<1.9	ug/L	5.0	1.9	1		08/25/23 17:32	91-20-3	
Styrene	<0.36	ug/L	1.0	0.36	1		08/25/23 17:32	100-42-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

Sample: MW-1 Lab ID: 40267092001 Collected: 08/21/23 11:45 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Tetrachloroethene	54.6	ug/L	1.0	0.41	1		08/25/23 17:32	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		08/25/23 17:32	108-88-3	
Trichloroethene	15.2	ug/L	1.0	0.32	1		08/25/23 17:32	79-01-6	
Trichlorofluoromethane	<0.42	ug/L	1.0	0.42	1		08/25/23 17:32	75-69-4	
Vinyl chloride	26.9	ug/L	1.0	0.17	1		08/25/23 17:32	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		08/25/23 17:32	1330-20-7	
cis-1,2-Dichloroethene	123	ug/L	1.0	0.47	1		08/25/23 17:32	156-59-2	
cis-1,3-Dichloropropene	<0.24	ug/L	1.0	0.24	1		08/25/23 17:32	10061-01-5	
m&p-Xylene	<0.70	ug/L	2.0	0.70	1		08/25/23 17:32	179601-23-1	
n-Butylbenzene	<0.86	ug/L	1.0	0.86	1		08/25/23 17:32	104-51-8	
n-Propylbenzene	<0.35	ug/L	1.0	0.35	1		08/25/23 17:32	103-65-1	
o-Xylene	<0.35	ug/L	1.0	0.35	1		08/25/23 17:32	95-47-6	
p-Isopropyltoluene	<1.0	ug/L	5.0	1.0	1		08/25/23 17:32	99-87-6	
sec-Butylbenzene	<0.42	ug/L	1.0	0.42	1		08/25/23 17:32	135-98-8	
tert-Butylbenzene	<0.59	ug/L	1.0	0.59	1		08/25/23 17:32	98-06-6	
trans-1,2-Dichloroethene	1.4	ug/L	1.0	0.53	1		08/25/23 17:32	156-60-5	
trans-1,3-Dichloropropene	<0.27	ug/L	1.0	0.27	1		08/25/23 17:32	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		08/25/23 17:32	460-00-4	
1,2-Dichlorobenzene-d4 (S)	103	%	70-130		1		08/25/23 17:32	2199-69-1	
Toluene-d8 (S)	101	%	70-130		1		08/25/23 17:32	2037-26-5	

Sample: MW-18 Lab ID: 40267092002 Collected: 08/21/23 14:10 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1,2-Tetrachloroethane	<0.36	ug/L	1.0	0.36	1		08/25/23 17:51	630-20-6	
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/25/23 17:51	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		08/25/23 17:51	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	1.0	0.34	1		08/25/23 17:51	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/25/23 17:51	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/25/23 17:51	75-35-4	
1,1-Dichloropropene	<0.41	ug/L	1.0	0.41	1		08/25/23 17:51	563-58-6	
1,2,3-Trichlorobenzene	<1.0	ug/L	5.0	1.0	1		08/25/23 17:51	87-61-6	
1,2,3-Trichloropropane	<0.56	ug/L	1.0	0.56	1		08/25/23 17:51	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/25/23 17:51	120-82-1	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		08/25/23 17:51	95-63-6	
1,2-Dibromo-3-chloropropane	<2.4	ug/L	5.0	2.4	1		08/25/23 17:51	96-12-8	
1,2-Dibromoethane (EDB)	<0.31	ug/L	1.0	0.31	1		08/25/23 17:51	106-93-4	
1,2-Dichlorobenzene	<0.33	ug/L	1.0	0.33	1		08/25/23 17:51	95-50-1	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		08/25/23 17:51	107-06-2	

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

Sample: MW-18 Lab ID: 40267092002 Collected: 08/21/23 14:10 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		08/25/23 17:51	78-87-5	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		08/25/23 17:51	108-67-8	
1,3-Dichlorobenzene	<0.35	ug/L	1.0	0.35	1		08/25/23 17:51	541-73-1	
1,3-Dichloropropane	<0.30	ug/L	1.0	0.30	1		08/25/23 17:51	142-28-9	
1,4-Dichlorobenzene	<0.89	ug/L	1.0	0.89	1		08/25/23 17:51	106-46-7	
2,2-Dichloropropane	<0.42	ug/L	1.0	0.42	1		08/25/23 17:51	594-20-7	
2-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/25/23 17:51	95-49-8	
4-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/25/23 17:51	106-43-4	
Benzene	<0.30	ug/L	1.0	0.30	1		08/25/23 17:51	71-43-2	
Bromobenzene	<0.36	ug/L	1.0	0.36	1		08/25/23 17:51	108-86-1	
Bromochloromethane	<0.36	ug/L	1.0	0.36	1		08/25/23 17:51	74-97-5	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		08/25/23 17:51	75-27-4	
Bromoform	<0.43	ug/L	1.0	0.43	1		08/25/23 17:51	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		08/25/23 17:51	74-83-9	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		08/25/23 17:51	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		08/25/23 17:51	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/25/23 17:51	75-00-3	
Chloroform	<0.50	ug/L	5.0	0.50	1		08/25/23 17:51	67-66-3	
Chloromethane	<1.6	ug/L	5.0	1.6	1		08/25/23 17:51	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		08/25/23 17:51	124-48-1	
Dibromomethane	<0.99	ug/L	5.0	0.99	1		08/25/23 17:51	74-95-3	
Dichlorodifluoromethane	<0.46	ug/L	5.0	0.46	1		08/25/23 17:51	75-71-8	
Diisopropyl ether	<1.1	ug/L	5.0	1.1	1		08/25/23 17:51	108-20-3	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		08/25/23 17:51	100-41-4	
Hexachloro-1,3-butadiene	<2.7	ug/L	5.0	2.7	1		08/25/23 17:51	87-68-3	
Isopropylbenzene (Cumene)	<1.0	ug/L	5.0	1.0	1		08/25/23 17:51	98-82-8	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		08/25/23 17:51	1634-04-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		08/25/23 17:51	75-09-2	
Naphthalene	<1.9	ug/L	5.0	1.9	1		08/25/23 17:51	91-20-3	
Styrene	<0.36	ug/L	1.0	0.36	1		08/25/23 17:51	100-42-5	
Tetrachloroethene	30.4	ug/L	1.0	0.41	1		08/25/23 17:51	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		08/25/23 17:51	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/25/23 17:51	79-01-6	
Trichlorofluoromethane	<0.42	ug/L	1.0	0.42	1		08/25/23 17:51	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/25/23 17:51	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		08/25/23 17:51	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/25/23 17:51	156-59-2	
cis-1,3-Dichloropropene	<0.24	ug/L	1.0	0.24	1		08/25/23 17:51	10061-01-5	
m&p-Xylene	<0.70	ug/L	2.0	0.70	1		08/25/23 17:51	179601-23-1	
n-Butylbenzene	<0.86	ug/L	1.0	0.86	1		08/25/23 17:51	104-51-8	
n-Propylbenzene	<0.35	ug/L	1.0	0.35	1		08/25/23 17:51	103-65-1	
o-Xylene	<0.35	ug/L	1.0	0.35	1		08/25/23 17:51	95-47-6	
p-Isopropyltoluene	<1.0	ug/L	5.0	1.0	1		08/25/23 17:51	99-87-6	
sec-Butylbenzene	<0.42	ug/L	1.0	0.42	1		08/25/23 17:51	135-98-8	
tert-Butylbenzene	<0.59	ug/L	1.0	0.59	1		08/25/23 17:51	98-06-6	

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

**Sample: MW-18**      **Lab ID: 40267092002**      Collected: 08/21/23 14:10      Received: 08/23/23 09:10      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/25/23 17:51	156-60-5	
trans-1,3-Dichloropropene	<0.27	ug/L	1.0	0.27	1		08/25/23 17:51	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/25/23 17:51	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	70-130		1		08/25/23 17:51	2199-69-1	
Toluene-d8 (S)	100	%	70-130		1		08/25/23 17:51	2037-26-5	

**Sample: MW-2**      **Lab ID: 40267092003**      Collected: 08/21/23 16:15      Received: 08/23/23 09:10      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1,2-Tetrachloroethane	<0.71	ug/L	2.0	0.71	2		08/25/23 19:09	630-20-6	
1,1,1-Trichloroethane	<0.61	ug/L	2.0	0.61	2		08/25/23 19:09	71-55-6	
1,1,2,2-Tetrachloroethane	<0.76	ug/L	2.0	0.76	2		08/25/23 19:09	79-34-5	
1,1,2-Trichloroethane	<0.69	ug/L	2.0	0.69	2		08/25/23 19:09	79-00-5	
1,1-Dichloroethane	<0.59	ug/L	2.0	0.59	2		08/25/23 19:09	75-34-3	
1,1-Dichloroethene	<1.2	ug/L	2.0	1.2	2		08/25/23 19:09	75-35-4	
1,1-Dichloropropene	<0.82	ug/L	2.0	0.82	2		08/25/23 19:09	563-58-6	
1,2,3-Trichlorobenzene	<2.0	ug/L	10.0	2.0	2		08/25/23 19:09	87-61-6	
1,2,3-Trichloropropane	<1.1	ug/L	2.0	1.1	2		08/25/23 19:09	96-18-4	
1,2,4-Trichlorobenzene	<1.9	ug/L	10.0	1.9	2		08/25/23 19:09	120-82-1	
1,2,4-Trimethylbenzene	<0.90	ug/L	2.0	0.90	2		08/25/23 19:09	95-63-6	
1,2-Dibromo-3-chloropropane	<4.7	ug/L	10.0	4.7	2		08/25/23 19:09	96-12-8	
1,2-Dibromoethane (EDB)	<0.62	ug/L	2.0	0.62	2		08/25/23 19:09	106-93-4	
1,2-Dichlorobenzene	<0.65	ug/L	2.0	0.65	2		08/25/23 19:09	95-50-1	
1,2-Dichloroethane	<0.58	ug/L	2.0	0.58	2		08/25/23 19:09	107-06-2	
1,2-Dichloropropane	<0.90	ug/L	2.0	0.90	2		08/25/23 19:09	78-87-5	
1,3,5-Trimethylbenzene	<0.71	ug/L	2.0	0.71	2		08/25/23 19:09	108-67-8	
1,3-Dichlorobenzene	<0.70	ug/L	2.0	0.70	2		08/25/23 19:09	541-73-1	
1,3-Dichloropropane	<0.61	ug/L	2.0	0.61	2		08/25/23 19:09	142-28-9	
1,4-Dichlorobenzene	<1.8	ug/L	2.0	1.8	2		08/25/23 19:09	106-46-7	
2,2-Dichloropropane	<0.84	ug/L	2.0	0.84	2		08/25/23 19:09	594-20-7	
2-Chlorotoluene	<1.8	ug/L	10.0	1.8	2		08/25/23 19:09	95-49-8	
4-Chlorotoluene	<1.8	ug/L	10.0	1.8	2		08/25/23 19:09	106-43-4	
Benzene	<0.59	ug/L	2.0	0.59	2		08/25/23 19:09	71-43-2	
Bromobenzene	<0.72	ug/L	2.0	0.72	2		08/25/23 19:09	108-86-1	
Bromochloromethane	<0.72	ug/L	2.0	0.72	2		08/25/23 19:09	74-97-5	
Bromodichloromethane	<0.83	ug/L	2.0	0.83	2		08/25/23 19:09	75-27-4	
Bromoform	<0.86	ug/L	2.0	0.86	2		08/25/23 19:09	75-25-2	
Bromomethane	<2.4	ug/L	10.0	2.4	2		08/25/23 19:09	74-83-9	
Carbon tetrachloride	<0.74	ug/L	2.0	0.74	2		08/25/23 19:09	56-23-5	

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

Sample: MW-2 Lab ID: 40267092003 Collected: 08/21/23 16:15 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Chlorobenzene	<1.7	ug/L	2.0	1.7	2		08/25/23 19:09	108-90-7	
Chloroethane	<2.8	ug/L	10.0	2.8	2		08/25/23 19:09	75-00-3	
Chloroform	<1.0	ug/L	10.0	1.0	2		08/25/23 19:09	67-66-3	
Chloromethane	<3.3	ug/L	10.0	3.3	2		08/25/23 19:09	74-87-3	
Dibromochloromethane	<5.3	ug/L	10.0	5.3	2		08/25/23 19:09	124-48-1	
Dibromomethane	<2.0	ug/L	10.0	2.0	2		08/25/23 19:09	74-95-3	
Dichlorodifluoromethane	<0.91	ug/L	10.0	0.91	2		08/25/23 19:09	75-71-8	
Diisopropyl ether	<2.2	ug/L	10.0	2.2	2		08/25/23 19:09	108-20-3	
Ethylbenzene	<0.65	ug/L	2.0	0.65	2		08/25/23 19:09	100-41-4	
Hexachloro-1,3-butadiene	<5.5	ug/L	10.0	5.5	2		08/25/23 19:09	87-68-3	
Isopropylbenzene (Cumene)	<2.0	ug/L	10.0	2.0	2		08/25/23 19:09	98-82-8	
Methyl-tert-butyl ether	<2.3	ug/L	10.0	2.3	2		08/25/23 19:09	1634-04-4	
Methylene Chloride	<0.64	ug/L	10.0	0.64	2		08/25/23 19:09	75-09-2	
Naphthalene	<3.8	ug/L	10.0	3.8	2		08/25/23 19:09	91-20-3	
Styrene	<0.71	ug/L	2.0	0.71	2		08/25/23 19:09	100-42-5	
Tetrachloroethene	141	ug/L	2.0	0.82	2		08/25/23 19:09	127-18-4	
Toluene	<0.58	ug/L	2.0	0.58	2		08/25/23 19:09	108-88-3	
Trichloroethene	9.0	ug/L	2.0	0.64	2		08/25/23 19:09	79-01-6	
Trichlorofluoromethane	<0.84	ug/L	2.0	0.84	2		08/25/23 19:09	75-69-4	
Vinyl chloride	2.9	ug/L	2.0	0.35	2		08/25/23 19:09	75-01-4	
Xylene (Total)	<2.1	ug/L	6.0	2.1	2		08/25/23 19:09	1330-20-7	
cis-1,2-Dichloroethene	1.8J	ug/L	2.0	0.94	2		08/25/23 19:09	156-59-2	
cis-1,3-Dichloropropene	<0.47	ug/L	2.0	0.47	2		08/25/23 19:09	10061-01-5	
m&p-Xylene	<1.4	ug/L	4.0	1.4	2		08/25/23 19:09	179601-23-1	
n-Butylbenzene	<1.7	ug/L	2.0	1.7	2		08/25/23 19:09	104-51-8	
n-Propylbenzene	<0.69	ug/L	2.0	0.69	2		08/25/23 19:09	103-65-1	
o-Xylene	<0.70	ug/L	2.0	0.70	2		08/25/23 19:09	95-47-6	
p-Isopropyltoluene	<2.1	ug/L	10.0	2.1	2		08/25/23 19:09	99-87-6	
sec-Butylbenzene	<0.85	ug/L	2.0	0.85	2		08/25/23 19:09	135-98-8	
tert-Butylbenzene	<1.2	ug/L	2.0	1.2	2		08/25/23 19:09	98-06-6	
trans-1,2-Dichloroethene	<1.1	ug/L	2.0	1.1	2		08/25/23 19:09	156-60-5	
trans-1,3-Dichloropropene	<0.53	ug/L	2.0	0.53	2		08/25/23 19:09	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		2		08/25/23 19:09	460-00-4	
1,2-Dichlorobenzene-d4 (S)	103	%	70-130		2		08/25/23 19:09	2199-69-1	
Toluene-d8 (S)	105	%	70-130		2		08/25/23 19:09	2037-26-5	

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

Sample: MW-16 Lab ID: 40267092004 Collected: 08/22/23 10:30 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1,2-Tetrachloroethane	<0.36	ug/L	1.0	0.36	1		08/29/23 08:20	630-20-6	
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/29/23 08:20	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		08/29/23 08:20	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	1.0	0.34	1		08/29/23 08:20	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/29/23 08:20	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/29/23 08:20	75-35-4	
1,1-Dichloropropene	<0.41	ug/L	1.0	0.41	1		08/29/23 08:20	563-58-6	
1,2,3-Trichlorobenzene	<1.0	ug/L	5.0	1.0	1		08/29/23 08:20	87-61-6	
1,2,3-Trichloropropane	<0.56	ug/L	1.0	0.56	1		08/29/23 08:20	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/29/23 08:20	120-82-1	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		08/29/23 08:20	95-63-6	
1,2-Dibromo-3-chloropropane	<2.4	ug/L	5.0	2.4	1		08/29/23 08:20	96-12-8	
1,2-Dibromoethane (EDB)	<0.31	ug/L	1.0	0.31	1		08/29/23 08:20	106-93-4	
1,2-Dichlorobenzene	<0.33	ug/L	1.0	0.33	1		08/29/23 08:20	95-50-1	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		08/29/23 08:20	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		08/29/23 08:20	78-87-5	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		08/29/23 08:20	108-67-8	
1,3-Dichlorobenzene	<0.35	ug/L	1.0	0.35	1		08/29/23 08:20	541-73-1	
1,3-Dichloropropane	<0.30	ug/L	1.0	0.30	1		08/29/23 08:20	142-28-9	
1,4-Dichlorobenzene	<0.89	ug/L	1.0	0.89	1		08/29/23 08:20	106-46-7	
2,2-Dichloropropane	<0.42	ug/L	1.0	0.42	1		08/29/23 08:20	594-20-7	
2-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/29/23 08:20	95-49-8	
4-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/29/23 08:20	106-43-4	
Benzene	<0.30	ug/L	1.0	0.30	1		08/29/23 08:20	71-43-2	
Bromobenzene	<0.36	ug/L	1.0	0.36	1		08/29/23 08:20	108-86-1	
Bromochloromethane	<0.36	ug/L	1.0	0.36	1		08/29/23 08:20	74-97-5	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		08/29/23 08:20	75-27-4	
Bromoform	<0.43	ug/L	1.0	0.43	1		08/29/23 08:20	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		08/29/23 08:20	74-83-9	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		08/29/23 08:20	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		08/29/23 08:20	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/29/23 08:20	75-00-3	
Chloroform	<0.50	ug/L	5.0	0.50	1		08/29/23 08:20	67-66-3	
Chloromethane	<1.6	ug/L	5.0	1.6	1		08/29/23 08:20	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		08/29/23 08:20	124-48-1	
Dibromomethane	<0.99	ug/L	5.0	0.99	1		08/29/23 08:20	74-95-3	
Dichlorodifluoromethane	<0.46	ug/L	5.0	0.46	1		08/29/23 08:20	75-71-8	
Diisopropyl ether	<1.1	ug/L	5.0	1.1	1		08/29/23 08:20	108-20-3	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		08/29/23 08:20	100-41-4	
Hexachloro-1,3-butadiene	<2.7	ug/L	5.0	2.7	1		08/29/23 08:20	87-68-3	
Isopropylbenzene (Cumene)	<1.0	ug/L	5.0	1.0	1		08/29/23 08:20	98-82-8	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		08/29/23 08:20	1634-04-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		08/29/23 08:20	75-09-2	
Naphthalene	<1.9	ug/L	5.0	1.9	1		08/29/23 08:20	91-20-3	
Styrene	<0.36	ug/L	1.0	0.36	1		08/29/23 08:20	100-42-5	

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

Sample: MW-16 Lab ID: 40267092004 Collected: 08/22/23 10:30 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Tetrachloroethene	1.4	ug/L	1.0	0.41	1		08/29/23 08:20	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		08/29/23 08:20	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/29/23 08:20	79-01-6	
Trichlorofluoromethane	<0.42	ug/L	1.0	0.42	1		08/29/23 08:20	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/29/23 08:20	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		08/29/23 08:20	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/29/23 08:20	156-59-2	
cis-1,3-Dichloropropene	<0.24	ug/L	1.0	0.24	1		08/29/23 08:20	10061-01-5	
m&p-Xylene	<0.70	ug/L	2.0	0.70	1		08/29/23 08:20	179601-23-1	
n-Butylbenzene	<0.86	ug/L	1.0	0.86	1		08/29/23 08:20	104-51-8	
n-Propylbenzene	<0.35	ug/L	1.0	0.35	1		08/29/23 08:20	103-65-1	
o-Xylene	<0.35	ug/L	1.0	0.35	1		08/29/23 08:20	95-47-6	
p-Isopropyltoluene	<1.0	ug/L	5.0	1.0	1		08/29/23 08:20	99-87-6	
sec-Butylbenzene	<0.42	ug/L	1.0	0.42	1		08/29/23 08:20	135-98-8	
tert-Butylbenzene	<0.59	ug/L	1.0	0.59	1		08/29/23 08:20	98-06-6	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/29/23 08:20	156-60-5	
trans-1,3-Dichloropropene	<0.27	ug/L	1.0	0.27	1		08/29/23 08:20	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		08/29/23 08:20	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	70-130		1		08/29/23 08:20	2199-69-1	
Toluene-d8 (S)	101	%	70-130		1		08/29/23 08:20	2037-26-5	

Sample: MW-22 Lab ID: 40267092005 Collected: 08/22/23 11:45 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1,2-Tetrachloroethane	<0.36	ug/L	1.0	0.36	1		08/29/23 14:08	630-20-6	
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/29/23 14:08	71-55-6	
1,1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		08/29/23 14:08	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	1.0	0.34	1		08/29/23 14:08	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/29/23 14:08	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/29/23 14:08	75-35-4	
1,1-Dichloropropene	<0.41	ug/L	1.0	0.41	1		08/29/23 14:08	563-58-6	
1,2,3-Trichlorobenzene	<1.0	ug/L	5.0	1.0	1		08/29/23 14:08	87-61-6	
1,2,3-Trichloropropane	<0.56	ug/L	1.0	0.56	1		08/29/23 14:08	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/29/23 14:08	120-82-1	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		08/29/23 14:08	95-63-6	
1,2-Dibromo-3-chloropropane	<2.4	ug/L	5.0	2.4	1		08/29/23 14:08	96-12-8	
1,2-Dibromoethane (EDB)	<0.31	ug/L	1.0	0.31	1		08/29/23 14:08	106-93-4	
1,2-Dichlorobenzene	<0.33	ug/L	1.0	0.33	1		08/29/23 14:08	95-50-1	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		08/29/23 14:08	107-06-2	

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

Sample: MW-22 Lab ID: 40267092005 Collected: 08/22/23 11:45 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		08/29/23 14:08	78-87-5	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		08/29/23 14:08	108-67-8	
1,3-Dichlorobenzene	<0.35	ug/L	1.0	0.35	1		08/29/23 14:08	541-73-1	
1,3-Dichloropropane	<0.30	ug/L	1.0	0.30	1		08/29/23 14:08	142-28-9	
1,4-Dichlorobenzene	<0.89	ug/L	1.0	0.89	1		08/29/23 14:08	106-46-7	
2,2-Dichloropropane	<0.42	ug/L	1.0	0.42	1		08/29/23 14:08	594-20-7	
2-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/29/23 14:08	95-49-8	
4-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/29/23 14:08	106-43-4	
Benzene	<0.30	ug/L	1.0	0.30	1		08/29/23 14:08	71-43-2	
Bromobenzene	<0.36	ug/L	1.0	0.36	1		08/29/23 14:08	108-86-1	
Bromochloromethane	<0.36	ug/L	1.0	0.36	1		08/29/23 14:08	74-97-5	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		08/29/23 14:08	75-27-4	
Bromoform	<0.43	ug/L	1.0	0.43	1		08/29/23 14:08	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		08/29/23 14:08	74-83-9	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		08/29/23 14:08	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		08/29/23 14:08	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/29/23 14:08	75-00-3	
Chloroform	<0.50	ug/L	5.0	0.50	1		08/29/23 14:08	67-66-3	
Chloromethane	<1.6	ug/L	5.0	1.6	1		08/29/23 14:08	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		08/29/23 14:08	124-48-1	
Dibromomethane	<0.99	ug/L	5.0	0.99	1		08/29/23 14:08	74-95-3	
Dichlorodifluoromethane	<0.46	ug/L	5.0	0.46	1		08/29/23 14:08	75-71-8	
Diisopropyl ether	<1.1	ug/L	5.0	1.1	1		08/29/23 14:08	108-20-3	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		08/29/23 14:08	100-41-4	
Hexachloro-1,3-butadiene	<2.7	ug/L	5.0	2.7	1		08/29/23 14:08	87-68-3	
Isopropylbenzene (Cumene)	<1.0	ug/L	5.0	1.0	1		08/29/23 14:08	98-82-8	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		08/29/23 14:08	1634-04-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		08/29/23 14:08	75-09-2	
Naphthalene	<1.9	ug/L	5.0	1.9	1		08/29/23 14:08	91-20-3	
Styrene	<0.36	ug/L	1.0	0.36	1		08/29/23 14:08	100-42-5	
Tetrachloroethene	29.5	ug/L	1.0	0.41	1		08/29/23 14:08	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		08/29/23 14:08	108-88-3	
Trichloroethene	1.0	ug/L	1.0	0.32	1		08/29/23 14:08	79-01-6	
Trichlorofluoromethane	<0.42	ug/L	1.0	0.42	1		08/29/23 14:08	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/29/23 14:08	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		08/29/23 14:08	1330-20-7	
cis-1,2-Dichloroethene	2.6	ug/L	1.0	0.47	1		08/29/23 14:08	156-59-2	
cis-1,3-Dichloropropene	<0.24	ug/L	1.0	0.24	1		08/29/23 14:08	10061-01-5	
m&p-Xylene	<0.70	ug/L	2.0	0.70	1		08/29/23 14:08	179601-23-1	
n-Butylbenzene	<0.86	ug/L	1.0	0.86	1		08/29/23 14:08	104-51-8	
n-Propylbenzene	<0.35	ug/L	1.0	0.35	1		08/29/23 14:08	103-65-1	
o-Xylene	<0.35	ug/L	1.0	0.35	1		08/29/23 14:08	95-47-6	
p-Isopropyltoluene	<1.0	ug/L	5.0	1.0	1		08/29/23 14:08	99-87-6	
sec-Butylbenzene	<0.42	ug/L	1.0	0.42	1		08/29/23 14:08	135-98-8	
tert-Butylbenzene	<0.59	ug/L	1.0	0.59	1		08/29/23 14:08	98-06-6	

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

Sample: MW-22 Lab ID: 40267092005 Collected: 08/22/23 11:45 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/29/23 14:08	156-60-5	
trans-1,3-Dichloropropene	<0.27	ug/L	1.0	0.27	1		08/29/23 14:08	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/29/23 14:08	460-00-4	
1,2-Dichlorobenzene-d4 (S)	101	%	70-130		1		08/29/23 14:08	2199-69-1	
Toluene-d8 (S)	101	%	70-130		1		08/29/23 14:08	2037-26-5	

Sample: TRIP BLANK Lab ID: 40267092006 Collected: 08/22/23 00:00 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1,2-Tetrachloroethane	<0.36	ug/L	1.0	0.36	1		08/29/23 10:34	630-20-6	
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		08/29/23 10:34	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		08/29/23 10:34	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	1.0	0.34	1		08/29/23 10:34	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		08/29/23 10:34	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		08/29/23 10:34	75-35-4	
1,1-Dichloropropene	<0.41	ug/L	1.0	0.41	1		08/29/23 10:34	563-58-6	
1,2,3-Trichlorobenzene	<1.0	ug/L	5.0	1.0	1		08/29/23 10:34	87-61-6	
1,2,3-Trichloropropane	<0.56	ug/L	1.0	0.56	1		08/29/23 10:34	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/29/23 10:34	120-82-1	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		08/29/23 10:34	95-63-6	
1,2-Dibromo-3-chloropropane	<2.4	ug/L	5.0	2.4	1		08/29/23 10:34	96-12-8	
1,2-Dibromoethane (EDB)	<0.31	ug/L	1.0	0.31	1		08/29/23 10:34	106-93-4	
1,2-Dichlorobenzene	<0.33	ug/L	1.0	0.33	1		08/29/23 10:34	95-50-1	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		08/29/23 10:34	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		08/29/23 10:34	78-87-5	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		08/29/23 10:34	108-67-8	
1,3-Dichlorobenzene	<0.35	ug/L	1.0	0.35	1		08/29/23 10:34	541-73-1	
1,3-Dichloropropane	<0.30	ug/L	1.0	0.30	1		08/29/23 10:34	142-28-9	
1,4-Dichlorobenzene	<0.89	ug/L	1.0	0.89	1		08/29/23 10:34	106-46-7	
2,2-Dichloropropane	<0.42	ug/L	1.0	0.42	1		08/29/23 10:34	594-20-7	
2-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/29/23 10:34	95-49-8	
4-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		08/29/23 10:34	106-43-4	
Benzene	<0.30	ug/L	1.0	0.30	1		08/29/23 10:34	71-43-2	
Bromobenzene	<0.36	ug/L	1.0	0.36	1		08/29/23 10:34	108-86-1	
Bromochloromethane	<0.36	ug/L	1.0	0.36	1		08/29/23 10:34	74-97-5	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		08/29/23 10:34	75-27-4	
Bromoform	<0.43	ug/L	1.0	0.43	1		08/29/23 10:34	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		08/29/23 10:34	74-83-9	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		08/29/23 10:34	56-23-5	

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## ANALYTICAL RESULTS

Project: 20.0158385.01

Pace Project No.: 40267092

Sample: TRIP BLANK Lab ID: 40267092006 Collected: 08/22/23 00:00 Received: 08/23/23 09:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		08/29/23 10:34	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		08/29/23 10:34	75-00-3	
Chloroform	<0.50	ug/L	5.0	0.50	1		08/29/23 10:34	67-66-3	
Chloromethane	<1.6	ug/L	5.0	1.6	1		08/29/23 10:34	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		08/29/23 10:34	124-48-1	
Dibromomethane	<0.99	ug/L	5.0	0.99	1		08/29/23 10:34	74-95-3	
Dichlorodifluoromethane	<0.46	ug/L	5.0	0.46	1		08/29/23 10:34	75-71-8	
Diisopropyl ether	<1.1	ug/L	5.0	1.1	1		08/29/23 10:34	108-20-3	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		08/29/23 10:34	100-41-4	
Hexachloro-1,3-butadiene	<2.7	ug/L	5.0	2.7	1		08/29/23 10:34	87-68-3	
Isopropylbenzene (Cumene)	<1.0	ug/L	5.0	1.0	1		08/29/23 10:34	98-82-8	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		08/29/23 10:34	1634-04-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		08/29/23 10:34	75-09-2	
Naphthalene	<1.9	ug/L	5.0	1.9	1		08/29/23 10:34	91-20-3	
Styrene	<0.36	ug/L	1.0	0.36	1		08/29/23 10:34	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		08/29/23 10:34	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		08/29/23 10:34	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		08/29/23 10:34	79-01-6	
Trichlorofluoromethane	<0.42	ug/L	1.0	0.42	1		08/29/23 10:34	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/29/23 10:34	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		08/29/23 10:34	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		08/29/23 10:34	156-59-2	
cis-1,3-Dichloropropene	<0.24	ug/L	1.0	0.24	1		08/29/23 10:34	10061-01-5	
m&p-Xylene	<0.70	ug/L	2.0	0.70	1		08/29/23 10:34	179601-23-1	
n-Butylbenzene	<0.86	ug/L	1.0	0.86	1		08/29/23 10:34	104-51-8	
n-Propylbenzene	<0.35	ug/L	1.0	0.35	1		08/29/23 10:34	103-65-1	
o-Xylene	<0.35	ug/L	1.0	0.35	1		08/29/23 10:34	95-47-6	
p-Isopropyltoluene	<1.0	ug/L	5.0	1.0	1		08/29/23 10:34	99-87-6	
sec-Butylbenzene	<0.42	ug/L	1.0	0.42	1		08/29/23 10:34	135-98-8	
tert-Butylbenzene	<0.59	ug/L	1.0	0.59	1		08/29/23 10:34	98-06-6	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		08/29/23 10:34	156-60-5	
trans-1,3-Dichloropropene	<0.27	ug/L	1.0	0.27	1		08/29/23 10:34	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98	%	70-130		1		08/29/23 10:34	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	70-130		1		08/29/23 10:34	2199-69-1	
Toluene-d8 (S)	103	%	70-130		1		08/29/23 10:34	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 20.0158385.01

Pace Project No.: 40267092

QC Batch: 453214

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40267092001, 40267092002, 40267092003, 40267092004

METHOD BLANK: 2603673

Matrix: Water

Associated Lab Samples: 40267092001, 40267092002, 40267092003, 40267092004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.36	1.0	08/25/23 10:23	
1,1,1-Trichloroethane	ug/L	<0.30	1.0	08/25/23 10:23	
1,1,2,2-Tetrachloroethane	ug/L	<0.38	1.0	08/25/23 10:23	
1,1,2-Trichloroethane	ug/L	<0.34	1.0	08/25/23 10:23	
1,1-Dichloroethane	ug/L	<0.30	1.0	08/25/23 10:23	
1,1-Dichloroethene	ug/L	<0.58	1.0	08/25/23 10:23	
1,1-Dichloropropene	ug/L	<0.41	1.0	08/25/23 10:23	
1,2,3-Trichlorobenzene	ug/L	<1.0	5.0	08/25/23 10:23	
1,2,3-Trichloropropane	ug/L	<0.56	1.0	08/25/23 10:23	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	08/25/23 10:23	
1,2,4-Trimethylbenzene	ug/L	<0.45	1.0	08/25/23 10:23	
1,2-Dibromo-3-chloropropane	ug/L	<2.4	5.0	08/25/23 10:23	
1,2-Dibromoethane (EDB)	ug/L	<0.31	1.0	08/25/23 10:23	
1,2-Dichlorobenzene	ug/L	<0.33	1.0	08/25/23 10:23	
1,2-Dichloroethane	ug/L	<0.29	1.0	08/25/23 10:23	
1,2-Dichloropropane	ug/L	<0.45	1.0	08/25/23 10:23	
1,3,5-Trimethylbenzene	ug/L	<0.36	1.0	08/25/23 10:23	
1,3-Dichlorobenzene	ug/L	<0.35	1.0	08/25/23 10:23	
1,3-Dichloropropane	ug/L	<0.30	1.0	08/25/23 10:23	
1,4-Dichlorobenzene	ug/L	<0.89	1.0	08/25/23 10:23	
2,2-Dichloropropane	ug/L	<0.42	1.0	08/25/23 10:23	
2-Chlorotoluene	ug/L	<0.89	5.0	08/25/23 10:23	
4-Chlorotoluene	ug/L	<0.89	5.0	08/25/23 10:23	
Benzene	ug/L	<0.30	1.0	08/25/23 10:23	
Bromobenzene	ug/L	<0.36	1.0	08/25/23 10:23	
Bromochloromethane	ug/L	<0.36	1.0	08/25/23 10:23	
Bromodichloromethane	ug/L	<0.42	1.0	08/25/23 10:23	
Bromoform	ug/L	<0.43	1.0	08/25/23 10:23	
Bromomethane	ug/L	<1.2	5.0	08/25/23 10:23	
Carbon tetrachloride	ug/L	<0.37	1.0	08/25/23 10:23	
Chlorobenzene	ug/L	<0.86	1.0	08/25/23 10:23	
Chloroethane	ug/L	<1.4	5.0	08/25/23 10:23	
Chloroform	ug/L	<0.50	5.0	08/25/23 10:23	
Chloromethane	ug/L	<1.6	5.0	08/25/23 10:23	
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	08/25/23 10:23	
cis-1,3-Dichloropropene	ug/L	<0.24	1.0	08/25/23 10:23	
Dibromochloromethane	ug/L	<2.6	5.0	08/25/23 10:23	
Dibromomethane	ug/L	<0.99	5.0	08/25/23 10:23	
Dichlorodifluoromethane	ug/L	<0.46	5.0	08/25/23 10:23	
Diisopropyl ether	ug/L	<1.1	5.0	08/25/23 10:23	

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## QUALITY CONTROL DATA

Project: 20.0158385.01

Pace Project No.: 40267092

METHOD BLANK: 2603673

Matrix: Water

Associated Lab Samples: 40267092001, 40267092002, 40267092003, 40267092004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.33	1.0	08/25/23 10:23	
Hexachloro-1,3-butadiene	ug/L	<2.7	5.0	08/25/23 10:23	
Isopropylbenzene (Cumene)	ug/L	<1.0	5.0	08/25/23 10:23	
m&p-Xylene	ug/L	<0.70	2.0	08/25/23 10:23	
Methyl-tert-butyl ether	ug/L	<1.1	5.0	08/25/23 10:23	
Methylene Chloride	ug/L	<0.32	5.0	08/25/23 10:23	
n-Butylbenzene	ug/L	<0.86	1.0	08/25/23 10:23	
n-Propylbenzene	ug/L	<0.35	1.0	08/25/23 10:23	
Naphthalene	ug/L	<1.9	5.0	08/25/23 10:23	
o-Xylene	ug/L	<0.35	1.0	08/25/23 10:23	
p-Isopropyltoluene	ug/L	<1.0	5.0	08/25/23 10:23	
sec-Butylbenzene	ug/L	<0.42	1.0	08/25/23 10:23	
Styrene	ug/L	<0.36	1.0	08/25/23 10:23	
tert-Butylbenzene	ug/L	<0.59	1.0	08/25/23 10:23	
Tetrachloroethene	ug/L	<0.41	1.0	08/25/23 10:23	
Toluene	ug/L	<0.29	1.0	08/25/23 10:23	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	08/25/23 10:23	
trans-1,3-Dichloropropene	ug/L	<0.27	1.0	08/25/23 10:23	
Trichloroethene	ug/L	<0.32	1.0	08/25/23 10:23	
Trichlorofluoromethane	ug/L	<0.42	1.0	08/25/23 10:23	
Vinyl chloride	ug/L	<0.17	1.0	08/25/23 10:23	
Xylene (Total)	ug/L	<1.0	3.0	08/25/23 10:23	
1,2-Dichlorobenzene-d4 (S)	%	100	70-130	08/25/23 10:23	
4-Bromofluorobenzene (S)	%	101	70-130	08/25/23 10:23	
Toluene-d8 (S)	%	103	70-130	08/25/23 10:23	

LABORATORY CONTROL SAMPLE: 2603674

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	56.8	114	70-134	
1,1,2,2-Tetrachloroethane	ug/L	50	48.7	97	69-130	
1,1,2-Trichloroethane	ug/L	50	51.6	103	70-130	
1,1-Dichloroethane	ug/L	50	55.4	111	70-130	
1,1-Dichloroethene	ug/L	50	54.7	109	74-131	
1,2,4-Trichlorobenzene	ug/L	50	43.6	87	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	41.1	82	64-137	
1,2-Dibromoethane (EDB)	ug/L	50	48.9	98	70-130	
1,2-Dichlorobenzene	ug/L	50	49.8	100	70-130	
1,2-Dichloroethane	ug/L	50	53.4	107	70-137	
1,2-Dichloropropane	ug/L	50	53.8	108	80-121	
1,3-Dichlorobenzene	ug/L	50	52.7	105	70-130	
1,4-Dichlorobenzene	ug/L	50	49.6	99	70-130	
Benzene	ug/L	50	54.6	109	70-130	
Bromodichloromethane	ug/L	50	54.1	108	70-130	

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## QUALITY CONTROL DATA

Project: 20.0158385.01

Pace Project No.: 40267092

LABORATORY CONTROL SAMPLE: 2603674

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	50	53.4	107	70-130	
Bromomethane	ug/L	50	44.8	90	21-147	
Carbon tetrachloride	ug/L	50	59.2	118	80-146	
Chlorobenzene	ug/L	50	54.0	108	70-130	
Chloroethane	ug/L	50	51.3	103	52-165	
Chloroform	ug/L	50	56.2	112	80-123	
Chloromethane	ug/L	50	47.8	96	51-122	
cis-1,2-Dichloroethene	ug/L	50	54.2	108	70-130	
cis-1,3-Dichloropropene	ug/L	50	53.2	106	70-130	
Dibromochloromethane	ug/L	50	53.6	107	70-130	
Dichlorodifluoromethane	ug/L	50	33.6	67	25-121	
Ethylbenzene	ug/L	50	54.8	110	80-120	
Isopropylbenzene (Cumene)	ug/L	50	50.4	101	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	49.0	98	70-130	
Methylene Chloride	ug/L	50	55.4	111	70-130	
o-Xylene	ug/L	50	53.4	107	70-130	
Styrene	ug/L	50	61.1	122	70-130	
Tetrachloroethene	ug/L	50	53.5	107	70-130	
Toluene	ug/L	50	53.3	107	80-120	
trans-1,2-Dichloroethene	ug/L	50	52.0	104	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.4	97	70-130	
Trichloroethene	ug/L	50	54.3	109	70-130	
Trichlorofluoromethane	ug/L	50	54.1	108	65-160	
Vinyl chloride	ug/L	50	52.1	104	63-134	
Xylene (Total)	ug/L	150	160	106	70-130	
1,2-Dichlorobenzene-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			103	70-130	

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## QUALITY CONTROL DATA

Project: 20.0158385.01

Pace Project No.: 40267092

QC Batch: 453336

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40267092005, 40267092006

METHOD BLANK: 2604631

Matrix: Water

Associated Lab Samples: 40267092005, 40267092006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.36	1.0	08/29/23 08:01	
1,1,1-Trichloroethane	ug/L	<0.30	1.0	08/29/23 08:01	
1,1,2,2-Tetrachloroethane	ug/L	<0.38	1.0	08/29/23 08:01	
1,1,2-Trichloroethane	ug/L	<0.34	1.0	08/29/23 08:01	
1,1-Dichloroethane	ug/L	<0.30	1.0	08/29/23 08:01	
1,1-Dichloroethene	ug/L	<0.58	1.0	08/29/23 08:01	
1,1-Dichloropropene	ug/L	<0.41	1.0	08/29/23 08:01	
1,2,3-Trichlorobenzene	ug/L	<1.0	5.0	08/29/23 08:01	
1,2,3-Trichloropropane	ug/L	<0.56	1.0	08/29/23 08:01	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	08/29/23 08:01	
1,2,4-Trimethylbenzene	ug/L	<0.45	1.0	08/29/23 08:01	
1,2-Dibromo-3-chloropropane	ug/L	<2.4	5.0	08/29/23 08:01	
1,2-Dibromoethane (EDB)	ug/L	<0.31	1.0	08/29/23 08:01	
1,2-Dichlorobenzene	ug/L	<0.33	1.0	08/29/23 08:01	
1,2-Dichloroethane	ug/L	<0.29	1.0	08/29/23 08:01	
1,2-Dichloropropane	ug/L	<0.45	1.0	08/29/23 08:01	
1,3,5-Trimethylbenzene	ug/L	<0.36	1.0	08/29/23 08:01	
1,3-Dichlorobenzene	ug/L	<0.35	1.0	08/29/23 08:01	
1,3-Dichloropropane	ug/L	<0.30	1.0	08/29/23 08:01	
1,4-Dichlorobenzene	ug/L	<0.89	1.0	08/29/23 08:01	
2,2-Dichloropropane	ug/L	<0.42	1.0	08/29/23 08:01	
2-Chlorotoluene	ug/L	<0.89	5.0	08/29/23 08:01	
4-Chlorotoluene	ug/L	<0.89	5.0	08/29/23 08:01	
Benzene	ug/L	<0.30	1.0	08/29/23 08:01	
Bromobenzene	ug/L	<0.36	1.0	08/29/23 08:01	
Bromochloromethane	ug/L	<0.36	1.0	08/29/23 08:01	
Bromodichloromethane	ug/L	<0.42	1.0	08/29/23 08:01	
Bromoform	ug/L	<0.43	1.0	08/29/23 08:01	
Bromomethane	ug/L	<1.2	5.0	08/29/23 08:01	
Carbon tetrachloride	ug/L	<0.37	1.0	08/29/23 08:01	
Chlorobenzene	ug/L	<0.86	1.0	08/29/23 08:01	
Chloroethane	ug/L	<1.4	5.0	08/29/23 08:01	
Chloroform	ug/L	<0.50	5.0	08/29/23 08:01	
Chloromethane	ug/L	<1.6	5.0	08/29/23 08:01	
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	08/29/23 08:01	
cis-1,3-Dichloropropene	ug/L	<0.24	1.0	08/29/23 08:01	
Dibromochloromethane	ug/L	<2.6	5.0	08/29/23 08:01	
Dibromomethane	ug/L	<0.99	5.0	08/29/23 08:01	
Dichlorodifluoromethane	ug/L	<0.46	5.0	08/29/23 08:01	
Diisopropyl ether	ug/L	<1.1	5.0	08/29/23 08:01	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 20.0158385.01

Pace Project No.: 40267092

METHOD BLANK: 2604631

Matrix: Water

Associated Lab Samples: 40267092005, 40267092006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.33	1.0	08/29/23 08:01	
Hexachloro-1,3-butadiene	ug/L	<2.7	5.0	08/29/23 08:01	
Isopropylbenzene (Cumene)	ug/L	<1.0	5.0	08/29/23 08:01	
m&p-Xylene	ug/L	<0.70	2.0	08/29/23 08:01	
Methyl-tert-butyl ether	ug/L	<1.1	5.0	08/29/23 08:01	
Methylene Chloride	ug/L	<0.32	5.0	08/29/23 08:01	
n-Butylbenzene	ug/L	<0.86	1.0	08/29/23 08:01	
n-Propylbenzene	ug/L	<0.35	1.0	08/29/23 08:01	
Naphthalene	ug/L	<1.9	5.0	08/29/23 08:01	
o-Xylene	ug/L	<0.35	1.0	08/29/23 08:01	
p-Isopropyltoluene	ug/L	<1.0	5.0	08/29/23 08:01	
sec-Butylbenzene	ug/L	<0.42	1.0	08/29/23 08:01	
Styrene	ug/L	<0.36	1.0	08/29/23 08:01	
tert-Butylbenzene	ug/L	<0.59	1.0	08/29/23 08:01	
Tetrachloroethene	ug/L	<0.41	1.0	08/29/23 08:01	
Toluene	ug/L	<0.29	1.0	08/29/23 08:01	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	08/29/23 08:01	
trans-1,3-Dichloropropene	ug/L	<0.27	1.0	08/29/23 08:01	
Trichloroethene	ug/L	<0.32	1.0	08/29/23 08:01	
Trichlorofluoromethane	ug/L	<0.42	1.0	08/29/23 08:01	
Vinyl chloride	ug/L	<0.17	1.0	08/29/23 08:01	
Xylene (Total)	ug/L	<1.0	3.0	08/29/23 08:01	
1,2-Dichlorobenzene-d4 (S)	%	101	70-130	08/29/23 08:01	
4-Bromofluorobenzene (S)	%	101	70-130	08/29/23 08:01	
Toluene-d8 (S)	%	102	70-130	08/29/23 08:01	

LABORATORY CONTROL SAMPLE: 2604632

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.3	111	70-134	
1,1,2,2-Tetrachloroethane	ug/L	50	45.9	92	69-130	
1,1,2-Trichloroethane	ug/L	50	49.8	100	70-130	
1,1-Dichloroethane	ug/L	50	54.1	108	70-130	
1,1-Dichloroethene	ug/L	50	52.1	104	74-131	
1,2,4-Trichlorobenzene	ug/L	50	42.2	84	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	39.3	79	64-137	
1,2-Dibromoethane (EDB)	ug/L	50	47.2	94	70-130	
1,2-Dichlorobenzene	ug/L	50	47.7	95	70-130	
1,2-Dichloroethane	ug/L	50	51.8	104	70-137	
1,2-Dichloropropane	ug/L	50	51.1	102	80-121	
1,3-Dichlorobenzene	ug/L	50	50.5	101	70-130	
1,4-Dichlorobenzene	ug/L	50	46.3	93	70-130	
Benzene	ug/L	50	53.3	107	70-130	
Bromodichloromethane	ug/L	50	52.3	105	70-130	

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**QUALITY CONTROL DATA**

Project: 20.0158385.01

Pace Project No.: 40267092

LABORATORY CONTROL SAMPLE: 2604632

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	50	51.4	103	70-130	
Bromomethane	ug/L	50	43.3	87	21-147	
Carbon tetrachloride	ug/L	50	58.9	118	80-146	
Chlorobenzene	ug/L	50	52.5	105	70-130	
Chloroethane	ug/L	50	48.4	97	52-165	
Chloroform	ug/L	50	53.7	107	80-123	
Chloromethane	ug/L	50	41.4	83	51-122	
cis-1,2-Dichloroethene	ug/L	50	51.6	103	70-130	
cis-1,3-Dichloropropene	ug/L	50	51.1	102	70-130	
Dibromochloromethane	ug/L	50	52.3	105	70-130	
Dichlorodifluoromethane	ug/L	50	24.1	48	25-121	
Ethylbenzene	ug/L	50	50.8	102	80-120	
Isopropylbenzene (Cumene)	ug/L	50	47.5	95	70-130	
m&p-Xylene	ug/L	100	101	101	70-130	
Methyl-tert-butyl ether	ug/L	50	44.6	89	70-130	
Methylene Chloride	ug/L	50	53.4	107	70-130	
o-Xylene	ug/L	50	49.5	99	70-130	
Styrene	ug/L	50	58.4	117	70-130	
Tetrachloroethene	ug/L	50	50.9	102	70-130	
Toluene	ug/L	50	50.5	101	80-120	
trans-1,2-Dichloroethene	ug/L	50	52.2	104	70-130	
trans-1,3-Dichloropropene	ug/L	50	45.9	92	70-130	
Trichloroethene	ug/L	50	53.4	107	70-130	
Trichlorofluoromethane	ug/L	50	52.7	105	65-160	
Vinyl chloride	ug/L	50	47.5	95	63-134	
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichlorobenzene-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2604843 2604844

Parameter	Units	MS 40267295021		MSD 2604843		MSD 2604844		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec						
1,1,1-Trichloroethane	ug/L	<0.30	50	50	56.2	56.2	112	112	70-134	0	20		
1,1,2,2-Tetrachloroethane	ug/L	<0.38	50	50	50.4	49.6	101	99	61-135	2	20		
1,1,2-Trichloroethane	ug/L	<0.34	50	50	54.6	52.2	109	104	70-130	4	20		
1,1-Dichloroethane	ug/L	<0.30	50	50	55.9	56.5	112	113	70-130	1	20		
1,1-Dichloroethene	ug/L	<0.58	50	50	51.3	54.1	103	108	71-130	5	20		
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	44.2	45.2	88	90	68-131	2	20		
1,2-Dibromo-3-chloropropane	ug/L	<2.4	50	50	44.5	46.9	89	94	51-141	5	20		
1,2-Dibromoethane (EDB)	ug/L	<0.31	50	50	49.6	48.8	99	98	70-130	1	20		
1,2-Dichlorobenzene	ug/L	<0.33	50	50	49.1	50.7	98	101	70-130	3	20		
1,2-Dichloroethane	ug/L	<0.29	50	50	55.0	55.6	110	111	70-137	1	20		

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 20.0158385.01

Pace Project No.: 40267092

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2604843 2604844												
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40267295021 Result	Spike Conc.	Spike Conc.	MS Result							
1,2-Dichloropropane	ug/L	<0.45	50	50	55.5	56.0	111	112	80-121	1	20	
1,3-Dichlorobenzene	ug/L	<0.35	50	50	51.7	53.7	103	107	70-130	4	20	
1,4-Dichlorobenzene	ug/L	<0.89	50	50	48.7	49.2	97	98	70-130	1	20	
Benzene	ug/L	<0.30	50	50	55.7	56.5	111	113	70-130	1	20	
Bromodichloromethane	ug/L	<0.42	50	50	55.9	58.0	112	116	70-130	4	20	
Bromoform	ug/L	<0.43	50	50	55.8	54.9	112	110	70-133	2	20	
Bromomethane	ug/L	<1.2	50	50	42.7	44.2	85	88	21-149	3	22	
Carbon tetrachloride	ug/L	<0.37	50	50	59.8	60.6	120	121	80-146	1	20	
Chlorobenzene	ug/L	<0.86	50	50	55.1	54.3	110	109	70-130	1	20	
Chloroethane	ug/L	<1.4	50	50	51.2	57.6	102	115	52-165	12	20	
Chloroform	ug/L	<0.50	50	50	57.3	57.7	115	115	80-123	1	20	
Chloromethane	ug/L	<1.6	50	50	42.3	40.7	85	81	42-125	4	20	
cis-1,2-Dichloroethene	ug/L	4.4	50	50	58.5	60.0	108	111	70-130	3	20	
cis-1,3-Dichloropropene	ug/L	<0.24	50	50	54.3	53.9	109	108	70-130	1	20	
Dibromochloromethane	ug/L	<2.6	50	50	54.1	54.1	108	108	70-130	0	20	
Dichlorodifluoromethane	ug/L	<0.46	50	50	23.2	22.7	46	45	25-121	2	20	
Ethylbenzene	ug/L	<0.33	50	50	54.5	54.2	109	108	80-121	1	20	
Isopropylbenzene (Cumene)	ug/L	<1.0	50	50	49.9	49.8	100	100	70-130	0	20	
m&p-Xylene	ug/L	<0.70	100	100	106	106	106	106	70-130	0	20	
Methyl-tert-butyl ether	ug/L	<1.1	50	50	44.7	44.7	89	89	70-130	0	20	
Methylene Chloride	ug/L	<0.32	50	50	54.9	56.8	110	114	70-130	3	20	
o-Xylene	ug/L	<0.35	50	50	52.8	52.5	106	105	70-130	1	20	
Styrene	ug/L	<0.36	50	50	61.4	61.8	123	124	70-132	1	20	
Tetrachloroethene	ug/L	<0.41	50	50	53.3	53.1	107	106	70-130	0	20	
Toluene	ug/L	<0.29	50	50	53.5	52.3	107	105	80-120	2	20	
trans-1,2-Dichloroethene	ug/L	<0.53	50	50	49.2	49.6	98	99	70-130	1	20	
trans-1,3-Dichloropropene	ug/L	<0.27	50	50	48.3	49.4	97	99	70-130	2	20	
Trichloroethene	ug/L	<0.32	50	50	54.8	55.4	110	111	70-130	1	20	
Trichlorofluoromethane	ug/L	<0.42	50	50	50.8	51.6	102	103	65-160	2	20	
Vinyl chloride	ug/L	<0.17	50	50	46.5	46.4	93	93	60-137	0	20	
Xylene (Total)	ug/L	<1.0	150	150	159	158	106	106	70-130	0	20	
1,2-Dichlorobenzene-d4 (S)	%						98	100	70-130			
4-Bromofluorobenzene (S)	%						99	101	70-130			
Toluene-d8 (S)	%						102	102	70-130			

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**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: 20.0158385.01

Pace Project No.: 40267092

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### 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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

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 at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20.0158385.01

Pace Project No.: 40267092

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40267092001	MW-1	EPA 8260	453214		
40267092002	MW-18	EPA 8260	453214		
40267092003	MW-2	EPA 8260	453214		
40267092004	MW-16	EPA 8260	453214		
40267092005	MW-22	EPA 8260	453336		
40267092006	TRIP BLANK	EPA 8260	453336		

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# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

40267092

## ALL SHADED AREAS are for LAB USE ONLY

Company: **GZA GeoEnvironmental**

Billing Information: **APA@gza.com**

Address: **17975 W Sarah Ln, Brookfield WI**

Report To: **Sheryl.Stephenson@gza.com**

Copy To: **Erika.mullen@gza.com**

Email To: **AP@gza.com**

Customer Project Name/Number: **20.0158385.01**

State: **WI** County/City: **WI** Time Zone Collected: **[ ] PT [ ] MT [ ] CT [ ] ET**

Phone: **262-202-1716**

Compliance Monitoring? **[ ] Yes [ ] No**

Collected By (print): **E. Mullen**

DW PWS ID #: **[ ]**

Collected By (signature): **Erika Mullen**

Immediately Packed on Ice: **[X] Yes [ ] No**

Sample Disposal: **[ ] Dispose as appropriate [ ] Return [ ] Archive [ ] Hold:**

Field Filtered (if applicable): **[ ] Yes [X] No**

Rush: **[ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day**

Analysis: **[ ]**

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
MW-1	GW	Grab	8/21/23	11:45			3	X
MW-18	GW	Grab	8/21/23	14:10			3	X
MW-2	GW	Grab	8/21/23	16:15			3	X
MW-16	GW	Grab	8/21/23	10:30			3	X
MW-22	GW	Grab	8/22/23	11:45			3	X
Trip Blank								

Container Preservative Type \*\*

Lab Project Manager:

\*\* Preservative Types. (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA

Custody Signatures Present Y N NA

Collector Signature Present Y N NA

Bottles Intact Y N NA

Correct Bottles Y N NA

Sufficient Volume Y N NA

Samples Received on Ice Y N NA

VOA Headspace Acceptable Y N NA

USDA Regulated Soils Y N NA

Samples in Holding Time Y N NA

Residual Chlorine Present Y N NA

Cl Strips: Y N NA

Sample pH Acceptable Y N NA

pH Strips: Y N NA

Sulfide Present Y N NA

Lead Acetate Strips: Y N NA

LAB USE ONLY: Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None  
Packing Material Used: **[ ]**  
Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A  
Lab Tracking #: **2908899**  
Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:  
Temp Blank Received: Y N NA  
Therm ID#: **[ ]**  
Cooler 1 Temp Upon Receipt: **[ ]** oC  
Cooler 1 Therm Corr. Factor: **[ ]** oC  
Cooler 1 Corrected Temp: **[ ]** oC  
Comments:

Relinquished by/Company: (Signature) **GZA Erika Mullen**

Date/Time: **8/21/23 1434**

Received by/Company: (Signature) **CS Logistics**

Date/Time: **8/21/23 1434**

MTJL LAB USE ONLY  
Table #: **[ ]**  
Acctnum: **[ ]**  
Template: **[ ]**  
Prelogin: **[ ]**

Relinquished by/Company: (Signature) **CS Logistics**

Date/Time: **8/22/23 0910**

Received by/Company: (Signature) **[ ]**

Date/Time: **8/22/23 0910**

PM: **[ ]**  
PB: **[ ]**

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

MTJL LAB USE ONLY

Trip Blank Received: Y N NA  
HCL MeOH TSP Other  
Non Conformance(s): YES / NO  
Page 25 of 27  
of: **[ ]**

Client Name: GZA Geo Environmental Sample Preservation Receipt Form Project # 40267092

All containers needing preservation have been checked and noted below.  Yes  No  N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted)

Initial when completed.

Date/Time.

Pace Lab #	Glass						Plastic						Vials				Jars				General		VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)			
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU								SP5T	ZPLC	GN 1
001																																2.5 / 5
002																																2.5 / 5
003																																2.5 / 5
004																																2.5 / 5
005																																2.5 / 5
006																																2.5 / 5
007																																2.5 / 5
008																																2.5 / 5
009																																2.5 / 5
010																																2.5 / 5
011																																2.5 / 5
012																																2.5 / 5
013																																2.5 / 5
014																																2.5 / 5
015																																2.5 / 5
016																																2.5 / 5
017																																2.5 / 5
018																																2.5 / 5
019																																2.5 / 5
020																																2.5 / 5

*Handwritten notes:*  
 8/23/22  
 [Signature]

Exceptions to preservation check VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other. Headspace in VOA Vials (>6mm)  Yes  No  N/A \*If yes look in headspace column

<b>AG1U</b>	1 liter amber glass	<b>BP1U</b>	1 liter plastic unpres	<b>VG9C</b>	40 mL clear ascorbic w/ HCl	<b>JGFU</b>	4 oz amber jar unpres
<b>BG1U</b>	1 liter clear glass	<b>BP3U</b>	250 mL plastic unpres	<b>DG9T</b>	40 mL amber Na Thio	<b>JG9U</b>	9 oz amber jar unpres
<b>AG1H</b>	1 liter amber glass HCL	<b>BP3B</b>	250 mL plastic NaOH	<b>VG9U</b>	40 mL clear vial unpres	<b>WGFU</b>	4 oz clear jar unpres
<b>AG4S</b>	125 mL amber glass H2SO4	<b>BP3N</b>	250 mL plastic HNO3	<b>VG9H</b>	40 mL clear vial HCL	<b>WPFU</b>	4 oz plastic jar unpres
<b>AG5U</b>	100 mL amber glass unpres	<b>BP3S</b>	250 mL plastic H2SO4	<b>VG9M</b>	40 mL clear vial MeOH	<b>SP5T</b>	120 mL plastic Na Thiosulfate
<b>AG2S</b>	500 mL amber glass H2SO4	<b>BP2Z</b>	500 mL plastic NaOH + Zn	<b>VG9D</b>	40 mL clear vial DI	<b>ZPLC</b>	ziploc bag
<b>BG3U</b>	250 mL clear glass unpres					<b>GN 1</b>	
						<b>GN 2</b>	

**Sample Condition Upon Receipt Form (SCUR)**

Project #:

Client Name: LOZA Geo Environmental  
 Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco  
 Client  Pace Other: \_\_\_\_\_

**WO#: 40267092**



Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used SR-109 Type of Ice: Wet Blue Dry None  Meltwater Only

Cooler Temperature Uncorr: 1.0 / Corr: 1.0

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:

Date: 8/23/23 Initials: SG

Labeled By Initials: mt

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- DI VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Correct Type: <u>Pace Green Bay</u> , Pace IR, Non-Pace		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>506</u>		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi