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November 16, 2023
File No. 20.0158385.01

Steven and Richard Klinke
Klinke's Clothing Care Corporation
1295 North Sherman Avenue
Madison, Wisconsin 53704-4236

Re: Notification of Groundwater Sampling Results
Klinke's Clothing Care Corporation
1295 North Sherman Avenue
Madison, Wisconsin
BRRTS File No. 02-13-551965

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 1295 North Sherman Avenue 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 Site is located at 1295 North Sherman Avenue within an area of mixed residential and commercial land use in the City of Madison, Wisconsin. The Site consists of a slab-on-grade, one-story, multi-tenant, commercial building with an asphalt-paved parking area. The property has been utilized for dry cleaning services since the early 1990s, and tetrachloroethene (PCE) was the main dry cleaning solvent used in the cleaning process until 2003. Prior to the 1990s, the Site was utilized as a gasoline service station from the 1950s until the 1980s. Site investigation activities were conducted between 2008 and 2013, by various consultants.

The subsurface conditions consist of sand and gravel fill beneath the building floor slab, underlain by silt and clay to approximately 15 feet below ground surface (bgs). Poorly-sorted, fine-grained sand and fine to medium gravel underlay the silt and clay to 50 feet bgs, the maximum depth explored. Groundwater was encountered between 18 and 20 feet bgs and groundwater flow was predominately to the south/southeast.

The prior Site investigation activities identified the source area located along a cast iron sanitary sewer lateral that ran beneath the building to the west toward North Sherman Avenue. In 2019, soil excavation and removal of the sanitary sewer lateral were conducted. The excavation removed approximately 377 tons of soil and also replaced the lateral.

The most recent groundwater sampling activities were conducted in April 2021. The results reported a reduction in the concentration of dissolved PCE in groundwater in the monitoring well network following the 2019 soil excavation activities.

GROUNDWATER INVESTIGATION

On June 22, 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 (PZ-4) was located off of the Site, approximately 60 feet to the south and downgradient.

The monitoring wells were purged and sampled using a peristaltic 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 21, 2023, GZA collected groundwater samples from four existing monitoring wells. Two monitoring wells (MW-2 and MW-3) were located on the Site near the Site building, and two monitoring wells (MW-4 and PZ-4) were located off of the Site, approximately 60 feet south and downgradient.

Prior to purging, the depth to groundwater relative to the top of casing was measured in each well. The monitoring wells were purged and sampled using a peristaltic 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, DO, specific conductance, 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 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 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 did not identify PFAS constituents above the NPDWR. The average hazard index value for the Site was calculated to be 0.29, which is below the NPDWR hazard index value of 1.0.

The VOC groundwater analytical results are summarized on **Table 2** and the results had declined in several wells since the last comprehensive sampling completed in 2021. The analytical results with constituent exceedances above the respective NR 140 standards were as follows:

- PCE was detected above the Enforcement Standard (ES) (5 micrograms per liter [µg/L]) in MW-3 (19.4 µg/L), MW-4 (12.6 µg/L), and PZ-4 (24.3 µg/L), and above the Preventive Action Limit (PAL) (0.5 µg/L) in MW-2 (1.7 µg/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.

Very truly yours,

GZA GeoEnvironmental, Inc.

Sheryl I. Stephenson, P.G.
Project Hydrogeologist

James F. Drought, P.H.
Principal Hydrogeologist

J:\158300to158399\158385 Klinke Cleaners\01 Ltd GW Samp-Closure Eval\Report\Notification of GW Sampling Results - N Sherman Avenue\
FINAL 20.0158385.01 Notification of GW Sampling Results_N Sherman Ave Madison WI 11-16-23.docx

Attachments: Tables 1 and 2
Limitations
Laboratory Analytical Reports

TABLES

TABLE 1
GROUNDWATER ANALYTICAL RESULTS - PFAS
Klinke's Clothing Care Corporation
1295 North Sherman Avenue
Madison, Wisconsin

Sample Date / Collected By	USEPA NPDWR	Units	MW-2 6/22/2023 GZA	MW-3 6/22/2023 GZA	PZ-4 6/22/2023 GZA
PFAs					
Perfluoro-1-butanesulfonic acid (PFBS)	1.0 H.I	ng/L	4.9	5.1	0.74 J
Perfluoro-1-decanesulfonic acid (PFDS)	NS	ng/L	<3.6	<3.7	<3.6
Perfluoro-1-heptanesulfonic acid (PFHpS)	NS	ng/L	<3.6	<3.7	<3.6
Perfluoro-1-nonanesulfonic acid (PFNS)	NS	ng/L	<3.6	<3.7	<3.6
Perfluoro-1-octanesulfonamide (PFOSA)	NS	ng/L	<3.6	<3.7	<3.6
Perfluoro-1-pentanesulfonic acid (PFPeS)	NS	ng/L	<3.6	<3.7	<3.6
Perfluorododecanesulfonic acid (PFDOS)	NS	ng/L	<7.3	<7.3	<7.2
Perfluorohexanesulfonic acid (PFHxS)	1.0 H.I	ng/L	2.6 J	4.6	<3.6
Perfluoro-n-butanoic acid (PFBA)	NS	ng/L	6.0	5.0	6.0
Perfluoro-n-decanoic acid (PFDA)	NS	ng/L	<3.6	<3.7	0.80 J
Perfluoro-n-dodecanoic acid (PFDoA)	NS	ng/L	<3.6	<3.7	<3.6
Perfluoro-n-heptanoic acid (PFHpA)	NS	ng/L	0.92 J	1.8 J	1.5 J
Perfluoro-n-hexanoic acid (PFHxA)	NS	ng/L	2.6 J	2.4 J	1.5 J
Perfluoro-n-nonanoic acid (PFNA)	1.0 H.I	ng/L	<3.6	<3.7	0.65 J
Perfluoro-n-octanoic acid (PFOA)	4	ng/L	2.6 J	2.7 J	2.8 J
Perfluoro-n-pentanoic acid (PFPeA)	NS	ng/L	2.7 J	2.7 J	1.9 J
Perfluoro-n-tetradecanoic acid (PFTeDA)	NS	ng/L	<3.6	<3.7	<3.6
Perfluoro-n-tridecanoic acid (PFTrDA)	NS	ng/L	<3.6	<3.7	<3.6
Perfluoro-n-undecanoic acid (PFUdA)	NS	ng/L	<3.6	<3.7	<3.6
Perfluorooctanesulfonic acid (PFOS)	4	ng/L	3.1 J	<3.7	<3.6
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	NS	ng/L	<7.3	<7.3	<7.2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS	NS	ng/L	<7.3	<7.3	<7.2
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	NS	ng/L	<7.3	<7.3	<7.2
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	NS	ng/L	<7.3	<7.3	<7.2
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	NS	ng/L	<7.3	<7.3	<7.2
Hexafluoropropylene oxide dimer acid (GenX)	1.0 H.I	ng/L	<7.3	<7.3	<7.2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	ng/L	<7.3	<7.3	<7.2
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	NS	ng/L	<7.3	<7.3	<7.2
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	NS	ng/L	<7.3	<7.3	<7.2
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	NS	ng/L	<7.3	<7.3	<7.2
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	NS	ng/L	<15	<15	<14
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	NS	ng/L	<7.3	<7.3	<7.2
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	NS	ng/L	<7.3	<7.3	<7.2

HAZARD INDEX	
MW-2	0.29
MW-3	0.51
PZ-4	0.07
Average	0.29

Notes:
1. Groundwater samples were analyzed by Pace Analytical of West Columbia, South Carolina.
2. Analytical results are presented in nanograms per liter (ng/l); equivalent to parts per trillion (ppt).
3. 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.
4. ***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.
5. 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"
6. < = Analytes were not present at concentrations above the laboratory detection limit.
7. NS - No Standard

TABLE 2
GROUNDWATER ANALYTICAL RESULTS - VOCs
Klinke's Clothing Care Corporation
1295 North Sherman Avenue
Madison, Wisconsin

	Wis. Adm. Code NR 140		Units	MW-2	MW-3	MW-4	PZ-4
Sample Date				8/21/2023	8/21/2023	8/21/2023	8/21/2023
Collected By	***PAL***	**ES**		GZA	GZA	GZA	GZA
VOCs							
1,1,1,2-Tetrachloroethane	7	70	µg/l	<0.36	<0.36	<0.36	<0.36
1,1,1-Trichloroethane	40	200	µg/l	<0.3	<0.3	<0.3	<0.3
1,1,2,2-Tetrachloroethane	0.02	0.2	µg/l	<0.38	<0.38	<0.38	<0.38
1,1,2-Trichloroethane	0.5	5	µg/l	<0.34	<0.34	<0.34	<0.34
1,1-Dichloroethane	85	850	µg/l	<0.3	<0.3	<0.3	<0.3
1,1-Dichloroethene	0.7	7	µg/l	<0.58	<0.58	<0.58	<0.58
1,1-Dichloropropene	NS	NS	µg/l	<0.41	<0.41	<0.41	<0.41
1,2,3-Trichlorobenzene	NS	NS	µg/l	<1	<1	<1	<1
1,2,3-Trichloropropane	12	60	µg/l	<0.56	<0.56	<0.56	<0.56
1,2,4-Trichlorobenzene	14	70	µg/l	<0.95	<0.95	<0.95	<0.95
1,2,4-Trimethylbenzene	96	480	µg/l	<0.45	<0.45	<0.45	<0.45
1,3,5-Trimethylbenzene			µg/l	<0.36	<0.36	<0.36	<0.36
1,2-Dibromo-3-chloropropane	0.02	0.2	µg/l	<2.4	<2.4	<2.4	<2.4
1,2-Dibromoethane (EDB)	0.005	0.05	µg/l	<0.31	<0.31	<0.31	<0.31
1,2-Dichlorobenzene	60	600	µg/l	<0.33	<0.33	<0.33	<0.33
1,2-Dichloroethane	0.5	5	µg/l	<0.29	<0.29	<0.29	<0.29
1,2-Dichloropropane	0.5	5	µg/l	<0.45	<0.45	<0.45	<0.45
1,3-Dichlorobenzene	60	600	µg/l	<0.35	<0.35	<0.35	<0.35
1,3-Dichloropropane	NS	NS	µg/l	<0.3	<0.3	<0.3	<0.3
1,4-Dichlorobenzene	15	75	µg/l	<0.89	<0.89	<0.89	<0.89
2,2-Dichloropropane	NS	NS	µg/l	<0.42	<0.42	<0.42	<0.42
2-Chlorotoluene	NS	NS	µg/l	<0.89	<0.89	<0.89	<0.89
4-Chlorotoluene	NS	NS	µg/l	<0.89	<0.89	<0.89	<0.89
Benzene	0.5	5	µg/l	<0.3	<0.3	<0.3	<0.3
Bromobenzene	NS	NS	µg/l	<0.36	<0.36	<0.36	<0.36
Bromochloromethane	NS	NS	µg/l	<0.36	<0.36	<0.36	<0.36
Bromodichloromethane	0.06	0.6	µg/l	<0.42	<0.42	<0.42	<0.42
Bromoform	0.44	4.4	µg/l	<0.43	<0.43	<0.43	<0.43
Bromomethane	1	10	µg/l	<1.2	<1.2	<1.2	<1.2
Carbon tetrachloride	0.5	5	µg/l	<0.37	<0.37	<0.37	<0.37
Chlorobenzene	NS	NS	µg/l	<0.86	<0.86	<0.86	<0.86
Chloroethane	80	400	µg/l	<1.4	<1.4	<1.4	<1.4
Chloroform	0.6	6	µg/l	<0.5	<0.5	<0.5	<0.5
Chloromethane	3	30	µg/l	<1.6	<1.6	<1.6	<1.6
Dibromochloromethane	6	60	µg/l	<2.6	<2.6	<2.6	<2.6
Dibromomethane	NS	NS	µg/l	<0.99	<0.99	<0.99	<0.99
Dichlorodifluoromethane	200	1000	µg/l	<0.46	<0.46	<0.46	<0.46
Diisopropyl ether	NS	NS	µg/l	<1.1	<1.1	<1.1	<1.1
Ethylbenzene	140	700	µg/l	<0.33	<0.33	<0.33	<0.33
Hexachloro-1,3-butadiene	NS	NS	µg/l	<2.7	<2.7	<2.7	<2.7
Isopropylbenzene (Cumene)	NS	NS	µg/l	<1	<1	<1	<1
Methyl-tert-butyl ether	12	60	µg/l	<1.1	<1.1	<1.1	<1.1
Methylene Chloride	0.5	5	µg/l	<0.32	<0.32	<0.32	<0.32
Naphthalene	10	100	µg/l	<1.9	<1.9	<1.9	<1.9
Styrene	10	100	µg/l	<0.36	<0.36	<0.36	<0.36
Tetrachloroethene	0.5	5	µg/l	***1.7***	**19.4**	**12.6**	**24.3**
Toluene	160	800	µg/l	<0.29	<0.29	<0.29	<0.29
Trichloroethene	0.5	5	µg/l	<0.32	<0.32	<0.32	<0.32
Trichlorofluoromethane	NS	NS	µg/l	<0.42	0.42J	<0.42	<0.42
Vinyl chloride	0.02	0.2	µg/l	<0.17	<0.17	<0.17	<0.17
Xylene (Total)	7	70	µg/l	<1	<1	<1	<1
cis-1,2-Dichloroethene	7	70	µg/l	<0.47	<0.47	<0.47	<0.47
cis-1,3-Dichloropropene	0.04	0.4	µg/l	<0.24	<0.24	<0.24	<0.24
m&p-Xylene	400	2000	µg/l	<0.7	<0.7	<0.7	<0.7
o-Xylene			µg/l	<0.35	<0.35	<0.35	<0.35
n-Butylbenzene	NS	NS	µg/l	<0.86	<0.86	<0.86	<0.86
n-Propylbenzene	NS	NS	µg/l	<0.35	<0.35	<0.35	<0.35
p-Isopropyltoluene	NS	NS	µg/l	<1	<1	<1	<1
sec-Butylbenzene	NS	NS	µg/l	<0.42	<0.42	<0.42	<0.42
tert-Butylbenzene	NS	NS	µg/l	<0.59	<0.59	<0.59	<0.59
trans-1,2-Dichloroethene	20	100.0	µg/l	<0.53	<0.53	<0.53	<0.53
trans-1,3-Dichloropropene	0.04	0.4	µg/l	<0.27	<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

Report of Analysis

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

Project Name: Klinke Cleaners - Sherman

Lot Number:**YF23023**

Date Completed:07/10/2023

07/10/2023 3:14 PM
Approved and released by:
Project Manager II: **Kathy E. Smith**

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

Case Narrative
GZA GeoEnvironmental, Inc.
Lot Number: YF23023

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:
Concentration (ng/L) = Cs*CF,

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

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 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
Sample YF23023-003 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: YF23023-001, YF23023-004. These samples did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Surrogate recovery for the following sample was outside control limits: YF23023-003. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Sample Summary

GZA GeoEnvironmental, Inc.

Lot Number: YF23023

Project Name: Klinke Cleaners - Sherman

Project Number:

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-3 (Sherman)	Aqueous	06/22/2023 1039	06/23/2023
002	MW-2 (Sherman)	Aqueous	06/22/2023 1133	06/23/2023
003	PZ- 1 (Sherman)	Aqueous	06/22/2023 1231	06/23/2023
004	Field Blank	Aqueous	06/22/2023 1500	06/23/2023
005	EQ Blank	Aqueous	06/22/2023 1505	06/23/2023

(5 samples)

Detection Summary

GZA GeoEnvironmental, Inc.

Lot Number: YF23023

Project Name: Klinke Cleaners - Sherman

Project Number:

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-3 (Sherman)	Aqueous	PFBS	PFAS by ID	5.1		ng/L	5
001	MW-3 (Sherman)	Aqueous	PFHxS	PFAS by ID	4.6		ng/L	5
001	MW-3 (Sherman)	Aqueous	PFBA	PFAS by ID	5.0		ng/L	5
001	MW-3 (Sherman)	Aqueous	PFHpA	PFAS by ID	1.8	J	ng/L	5
001	MW-3 (Sherman)	Aqueous	PFHxA	PFAS by ID	2.4	J	ng/L	5
001	MW-3 (Sherman)	Aqueous	PFOA	PFAS by ID	2.7	J	ng/L	5
001	MW-3 (Sherman)	Aqueous	PFPeA	PFAS by ID	2.7	J	ng/L	5
002	MW-2 (Sherman)	Aqueous	PFBS	PFAS by ID	4.9		ng/L	7
002	MW-2 (Sherman)	Aqueous	PFHxS	PFAS by ID	2.6	J	ng/L	7
002	MW-2 (Sherman)	Aqueous	PFBA	PFAS by ID	6.0		ng/L	7
002	MW-2 (Sherman)	Aqueous	PFHpA	PFAS by ID	0.92	J	ng/L	7
002	MW-2 (Sherman)	Aqueous	PFHxA	PFAS by ID	2.6	J	ng/L	7
002	MW-2 (Sherman)	Aqueous	PFOA	PFAS by ID	2.6	J	ng/L	7
002	MW-2 (Sherman)	Aqueous	PFPeA	PFAS by ID	2.7	J	ng/L	7
002	MW-2 (Sherman)	Aqueous	PFOS	PFAS by ID	3.1	J	ng/L	7
003	PZ- 1 (Sherman)	Aqueous	PFBS	PFAS by ID	0.74	J	ng/L	9
003	PZ- 1 (Sherman)	Aqueous	PFBA	PFAS by ID	6.0		ng/L	9
003	PZ- 1 (Sherman)	Aqueous	PFDA	PFAS by ID	0.80	J	ng/L	9
003	PZ- 1 (Sherman)	Aqueous	PFHpA	PFAS by ID	1.5	J	ng/L	9
003	PZ- 1 (Sherman)	Aqueous	PFHxA	PFAS by ID	1.5	J	ng/L	9
003	PZ- 1 (Sherman)	Aqueous	PFNA	PFAS by ID	0.65	J	ng/L	9
003	PZ- 1 (Sherman)	Aqueous	PFOA	PFAS by ID	2.8	J	ng/L	9
003	PZ- 1 (Sherman)	Aqueous	PFPeA	PFAS by ID	1.9	J	ng/L	9

(23 detections)

PFAS by LC/MS/MS

Client: **GZA GeoEnvironmental, Inc.** Laboratory ID: **YF23023-001**

Description: **MW-3 (Sherman)** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1039** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	07/07/2023 1614	OMNS	07/03/2023 1435	79128

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		7.3	0.44	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	0.61	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.5	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	Q	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	Q	7.3	0.80	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	0.44	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	0.69	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	0.87	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		7.3	0.85	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	**375-73-5**	**PFAS by ID SOP**	**5.1**		**3.7**	**0.38**	**ng/L**	**1**
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.71	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	0.65	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.56	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.54	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	0.95	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	**355-46-4**	**PFAS by ID SOP**	**4.6**		**3.7**	**0.50**	**ng/L**	**1**
Perfluoro-n-butanoic acid (PFBA)	**375-22-4**	**PFAS by ID SOP**	**5.0**		**3.7**	**0.55**	**ng/L**	**1**
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.48	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.43	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	**375-85-9**	**PFAS by ID SOP**	**1.8**	**J**	**3.7**	**0.41**	**ng/L**	**1**
Perfluoro-n-hexanoic acid (PFHxA)	**307-24-4**	**PFAS by ID SOP**	**2.4**	**J**	**3.7**	**0.63**	**ng/L**	**1**
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.42	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	**335-67-1**	**PFAS by ID SOP**	**2.7**	**J**	**3.7**	**0.76**	**ng/L**	**1**
Perfluoro-n-pentanoic acid (PFPeA)	**2706-90-3**	**PFAS by ID SOP**	**2.7**	**J**	**3.7**	**0.50**	**ng/L**	**1**
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.55	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.48	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.57	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.7	1.8	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS	N	170	25-150
13C2_6:2FTS	N	167	25-150
13C2_8:2FTS		103	25-150
13C2_PFDoA		81	25-150
13C2_PFTeDA		84	25-150
13C3_PFBS		96	25-150
13C3_PFHxS		87	25-150
13C3-HFPO-DA		105	25-150
13C4_PFBA		74	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: **GZA GeoEnvironmental, Inc.** Laboratory ID: **YF23023-001**

Description: **MW-3 (Sherman)** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1039** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		92	25-150
13C5_PFHxA		93	25-150
13C5_PFPeA		88	25-150
13C6_PFDA		88	25-150
13C7_PFUdA		91	25-150
13C8_PFOA		102	25-150
13C8_PFOS		85	25-150
13C8_PFOSA		85	10-150
13C9_PFNA		87	25-150
d-EtFOSA		46	10-150
d5-EtFOSAA		85	25-150
d9-EtFOSE		69	10-150
d-MeFOSA		56	10-150
d3-MeFOSAA		91	25-150
d7-MeFOSE		66	10-150

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%
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PFAS by LC/MS/MS

Client: **GZA GeoEnvironmental, Inc.** Laboratory ID: **YF23023-002**

Description: **MW-2 (Sherman)** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1133** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	07/07/2023 1636	OMNS	07/03/2023 1435	79128

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		7.3	0.44	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	0.60	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.5	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	0.79	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	0.44	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	0.68	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	0.86	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	1.1	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	0.84	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	**375-73-5**	**PFAS by ID SOP**	**4.9**		**3.6**	**0.38**	**ng/L**	**1**
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.71	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.45	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.65	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.56	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.54	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	0.95	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	**355-46-4**	**PFAS by ID SOP**	**2.6**	**J**	**3.6**	**0.50**	**ng/L**	**1**
Perfluoro-n-butanoic acid (PFBA)	**375-22-4**	**PFAS by ID SOP**	**6.0**		**3.6**	**0.54**	**ng/L**	**1**
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.48	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.43	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	**375-85-9**	**PFAS by ID SOP**	**0.92**	**J**	**3.6**	**0.41**	**ng/L**	**1**
Perfluoro-n-hexanoic acid (PFHxA)	**307-24-4**	**PFAS by ID SOP**	**2.6**	**J**	**3.6**	**0.62**	**ng/L**	**1**
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.42	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	**335-67-1**	**PFAS by ID SOP**	**2.6**	**J**	**3.6**	**0.75**	**ng/L**	**1**
Perfluoro-n-pentanoic acid (PFPeA)	**2706-90-3**	**PFAS by ID SOP**	**2.7**	**J**	**3.6**	**0.49**	**ng/L**	**1**
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.54	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.48	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.57	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	**1763-23-1**	**PFAS by ID SOP**	**3.1**	**J**	**3.6**	**1.8**	**ng/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		123	25-150
13C2_6:2FTS		119	25-150
13C2_8:2FTS		89	25-150
13C2_PFDoA		71	25-150
13C2_PFTeDA		75	25-150
13C3_PFBS		84	25-150
13C3_PFHxS		81	25-150
13C3-HFPO-DA		91	25-150
13C4_PFBA		67	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: **GZA GeoEnvironmental, Inc.** Laboratory ID: **YF23023-002**

Description: **MW-2 (Sherman)** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1133** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		82	25-150
13C5_PFHxA		79	25-150
13C5_PFPeA		79	25-150
13C6_PFDA		77	25-150
13C7_PFUdA		80	25-150
13C8_PFOA		86	25-150
13C8_PFOS		79	25-150
13C8_PFOSA		72	10-150
13C9_PFNA		77	25-150
d-EtFOSA		45	10-150
d5-EtFOSAA		81	25-150
d9-EtFOSE		65	10-150
d-MeFOSA		54	10-150
d3-MeFOSAA		77	25-150
d7-MeFOSE		69	10-150

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
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PFAS by LC/MS/MS

Client: **GZA GeoEnvironmental, Inc.** Laboratory ID: **YF23023-003**

Description: **PZ- 1 (Sherman)** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1231** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	07/07/2023 1738	OMNS	07/03/2023 1435	79128

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		7.2	0.44	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	0.60	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.4	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	Q	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND	Q	7.2	0.79	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	0.44	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND	Q	7.2	1.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	0.68	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	0.86	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		7.2	0.84	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	**375-73-5**	**PFAS by ID SOP**	**0.74**	**J**	**3.6**	**0.37**	**ng/L**	**1**
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.70	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.45	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.64	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.55	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.54	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	0.95	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.6	0.50	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	**375-22-4**	**PFAS by ID SOP**	**6.0**		**3.6**	**0.54**	**ng/L**	**1**
Perfluoro-n-decanoic acid (PFDA)	**335-76-2**	**PFAS by ID SOP**	**0.80**	**J**	**3.6**	**0.47**	**ng/L**	**1**
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.43	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	**375-85-9**	**PFAS by ID SOP**	**1.5**	**J**	**3.6**	**0.40**	**ng/L**	**1**
Perfluoro-n-hexanoic acid (PFHxA)	**307-24-4**	**PFAS by ID SOP**	**1.5**	**J**	**3.6**	**0.62**	**ng/L**	**1**
Perfluoro-n-nonanoic acid (PFNA)	**375-95-1**	**PFAS by ID SOP**	**0.65**	**J**	**3.6**	**0.42**	**ng/L**	**1**
Perfluoro-n-octanoic acid (PFOA)	**335-67-1**	**PFAS by ID SOP**	**2.8**	**J**	**3.6**	**0.75**	**ng/L**	**1**
Perfluoro-n-pentanoic acid (PFPeA)	**2706-90-3**	**PFAS by ID SOP**	**1.9**	**J**	**3.6**	**0.49**	**ng/L**	**1**
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.54	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.48	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.57	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.6	1.8	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS	N	215	25-150
13C2_6:2FTS	N	192	25-150
13C2_8:2FTS		113	25-150
13C2_PFDoA		77	25-150
13C2_PFTeDA		42	25-150
13C3_PFBS		94	25-150
13C3_PFHxS		85	25-150
13C3-HFPO-DA		95	25-150
13C4_PFBA		73	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: **GZA GeoEnvironmental, Inc.** Laboratory ID: **YF23023-003**

Description: **PZ- 1 (Sherman)** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1231** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		89	25-150
13C5_PFHxA		94	25-150
13C5_PFPeA		87	25-150
13C6_PFDA		93	25-150
13C7_PFUdA		91	25-150
13C8_PFOA		98	25-150
13C8_PFOS		85	25-150
13C8_PFOSA		80	10-150
13C9_PFNA		89	25-150
d-EtFOSA	N	6.4	10-150
d5-EtFOSAA		98	25-150
d9-EtFOSE		38	10-150
d-MeFOSA		10	10-150
d3-MeFOSAA		99	25-150
d7-MeFOSE		46	10-150

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
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PFAS by LC/MS/MS

Client: **GZA GeoEnvironmental, Inc.** Laboratory ID: **YF23023-004**

Description: **Field Blank** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1500** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	07/07/2023 1749	OMNS	07/03/2023 1435	79128

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		7.3	0.44	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	0.61	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.5	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	Q	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	0.80	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	0.44	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	0.69	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	0.87	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		7.3	0.85	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		3.7	0.38	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.71	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	0.65	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.56	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.54	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	0.96	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.7	0.50	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	ND		3.7	0.55	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.48	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.43	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.41	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.63	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.42	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.7	0.76	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.50	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.55	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.48	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.57	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.7	1.8	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		102	25-150
13C2_6:2FTS	N	166	25-150
13C2_8:2FTS		107	25-150
13C2_PFDoA		91	25-150
13C2_PFTeDA		88	25-150
13C3_PFBS		100	25-150
13C3_PFHxS		91	25-150
13C3-HFPO-DA		113	25-150
13C4_PFBA		99	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%
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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: **YF23023-004**

Description: **Field Blank** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1500** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		99	25-150
13C5_PFHxA		96	25-150
13C5_PFPeA		98	25-150
13C6_PFDA		93	25-150
13C7_PFUdA		95	25-150
13C8_PFOA		111	25-150
13C8_PFOS		99	25-150
13C8_PFOSA		96	10-150
13C9_PFNA		87	25-150
d-EtFOSA		67	10-150
d5-EtFOSAA		98	25-150
d9-EtFOSE		92	10-150
d-MeFOSA		74	10-150
d3-MeFOSAA		97	25-150
d7-MeFOSE		92	10-150

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
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S = MS/MSD failure

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PFAS by LC/MS/MS

Client: **GZA GeoEnvironmental, Inc.** Laboratory ID: **YF23023-005**

Description: **EQ Blank** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1505** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	07/07/2023 1547	BWS	07/05/2023 1154	79212

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		7.3	0.44	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	0.61	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.5	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	0.80	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	0.44	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	0.69	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	0.87	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		7.3	0.85	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.2	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		3.7	0.38	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.71	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	0.65	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.56	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.54	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	0.95	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.7	0.50	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	ND		3.7	0.55	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.48	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.43	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.41	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.63	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.42	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.7	0.76	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.50	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.55	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.48	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.57	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.7	1.8	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		95	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		101	25-150
13C2_PFDoA		88	25-150
13C2_PFTeDA		87	25-150
13C3_PFBS		91	25-150
13C3_PFHxS		97	25-150
13C3-HFPO-DA		98	25-150
13C4_PFBA		97	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%
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PFAS by LC/MS/MS

Client: **GZA GeoEnvironmental, Inc.** Laboratory ID: **YF23023-005**

Description: **EQ Blank** Matrix: **Aqueous**

Date Sampled: **06/22/2023 1505** Project Name: **Klinke Cleaners - Sherman**

Date Received: **06/23/2023** Project Number:

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		100	25-150
13C5_PFHxA		97	25-150
13C5_PFPeA		96	25-150
13C6_PFDA		93	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		94	25-150
13C8_PFOS		94	25-150
13C8_PFOSA		89	10-150
13C9_PFNA		92	25-150
d-EtFOSA		63	10-150
d5-EtFOSAA		94	25-150
d9-EtFOSE		80	10-150
d-MeFOSA		62	10-150
d3-MeFOSAA		104	25-150
d7-MeFOSE		79	10-150

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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QC Summary

PFAS by LC/MS/MS - MB

Sample ID: YQ79128-001
Batch: 79128
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/03/2023 1435

Parameter	Result	Q	Dil	LOQ	MDL	Units	Analysis Date
9Cl-PF3ONS	ND		1	8.0	0.48	ng/L	07/07/2023 1509
11Cl-PF3OUdS	ND		1	8.0	0.66	ng/L	07/07/2023 1509
8:2 FTS	ND		1	8.0	1.6	ng/L	07/07/2023 1509
6:2 FTS	ND		1	8.0	2.0	ng/L	07/07/2023 1509
4:2 FTS	ND		1	8.0	0.87	ng/L	07/07/2023 1509
GenX	ND		1	8.0	2.1	ng/L	07/07/2023 1509
ADONA	ND		1	8.0	0.48	ng/L	07/07/2023 1509
EtFOSA	ND		1	8.0	1.4	ng/L	07/07/2023 1509
EtFOSAA	ND		1	8.0	0.75	ng/L	07/07/2023 1509
EtFOSE	ND		1	8.0	0.95	ng/L	07/07/2023 1509
MeFOSA	ND		1	16	1.3	ng/L	07/07/2023 1509
MeFOSAA	ND		1	8.0	0.93	ng/L	07/07/2023 1509
MeFOSE	ND		1	8.0	1.3	ng/L	07/07/2023 1509
PFBS	ND		1	4.0	0.41	ng/L	07/07/2023 1509
PFDS	ND		1	4.0	0.78	ng/L	07/07/2023 1509
PFHpS	ND		1	4.0	0.50	ng/L	07/07/2023 1509
PFNS	ND		1	4.0	0.71	ng/L	07/07/2023 1509
PFOSA	ND		1	4.0	0.61	ng/L	07/07/2023 1509
PFPeS	ND		1	4.0	0.59	ng/L	07/07/2023 1509
PFDOS	ND		1	8.0	1.0	ng/L	07/07/2023 1509
PFHxS	ND		1	4.0	0.55	ng/L	07/07/2023 1509
PFBA	ND		1	4.0	0.60	ng/L	07/07/2023 1509
PFDA	ND		1	4.0	0.52	ng/L	07/07/2023 1509
PFDoA	ND		1	4.0	0.47	ng/L	07/07/2023 1509
PFHpA	ND		1	4.0	0.45	ng/L	07/07/2023 1509
PFHxA	ND		1	4.0	0.69	ng/L	07/07/2023 1509
PFNA	ND		1	4.0	0.46	ng/L	07/07/2023 1509
PFOA	ND		1	4.0	0.83	ng/L	07/07/2023 1509
PFPeA	ND		1	4.0	0.54	ng/L	07/07/2023 1509
PFTeDA	ND		1	4.0	0.60	ng/L	07/07/2023 1509
PFTrDA	ND		1	4.0	0.53	ng/L	07/07/2023 1509
PFUdA	ND		1	4.0	0.63	ng/L	07/07/2023 1509
PFOS	ND		1	4.0	2.0	ng/L	07/07/2023 1509

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		94	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		90	25-150
13C2_PFDoA		80	25-150
13C2_PFTeDA		79	25-150
13C3_PFBS		86	25-150
13C3_PFHxS		76	25-150
13C3-HFPO-DA		97	25-150

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: YQ79128-001
Batch: 79128
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/03/2023 1435

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBA		85	25-150
13C4_PFHpA		89	25-150
13C5_PFHxA		83	25-150
13C5_PFPeA		82	25-150
13C6_PFDA		82	25-150
13C7_PFUdA		86	25-150
13C8_PFOA		91	25-150
13C8_PFOS		74	25-150
13C8_PFOSA		82	10-150
13C9_PFNA		73	25-150
d-EtFOSA		48	10-150
d5-EtFOSAA		83	25-150
d9-EtFOSE		68	10-150
d-MeFOSA		55	10-150
d3-MeFOSAA		85	25-150
d7-MeFOSE		68	10-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: YQ79128-002
Batch: 79128
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/03/2023 1435

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9Cl-PF3ONS	15	17		1	113	50-150	07/07/2023 1520
11Cl-PF3OUdS	15	15		1	103	50-150	07/07/2023 1520
8:2 FTS	15	14		1	93	50-150	07/07/2023 1520
6:2 FTS	15	15		1	97	50-150	07/07/2023 1520
4:2 FTS	15	15		1	102	50-150	07/07/2023 1520
GenX	32	31		1	97	50-150	07/07/2023 1520
ADONA	15	16		1	106	50-150	07/07/2023 1520
EtFOSA	16	15		1	93	50-150	07/07/2023 1520
EtFOSAA	16	16		1	103	50-150	07/07/2023 1520
EtFOSE	16	17		1	106	50-150	07/07/2023 1520
MeFOSA	16	15		1	93	50-150	07/07/2023 1520
MeFOSAA	16	18		1	112	50-150	07/07/2023 1520
MeFOSE	16	17		1	106	50-150	07/07/2023 1520
PFBS	14	15		1	106	50-150	07/07/2023 1520
PFDS	15	15		1	99	50-150	07/07/2023 1520
PFHpS	15	17		1	114	50-150	07/07/2023 1520
PFNS	15	16		1	104	50-150	07/07/2023 1520
PFOSA	16	16		1	99	50-150	07/07/2023 1520
PFPeS	15	16		1	109	50-150	07/07/2023 1520
PFDOS	15	15		1	98	50-150	07/07/2023 1520
PFHxS	15	15		1	103	50-150	07/07/2023 1520
PFBA	16	17		1	107	50-150	07/07/2023 1520
PFDA	16	17		1	109	50-150	07/07/2023 1520
PFDoA	16	17		1	108	50-150	07/07/2023 1520
PFHpA	16	19		1	119	50-150	07/07/2023 1520
PFHxA	16	20		1	124	50-150	07/07/2023 1520
PFNA	16	18		1	113	50-150	07/07/2023 1520
PFOA	16	17		1	106	50-150	07/07/2023 1520
PFPeA	16	17		1	108	50-150	07/07/2023 1520
PFTeDA	16	18		1	115	50-150	07/07/2023 1520
PFTrDA	16	16		1	98	50-150	07/07/2023 1520
PFUdA	16	18		1	110	50-150	07/07/2023 1520
PFOS	15	16		1	105	50-150	07/07/2023 1520

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		95	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		102	25-150
13C2_PFDoA		87	25-150
13C2_PFTeDA		84	25-150
13C3_PFBS		87	25-150
13C3_PFHxS		86	25-150
13C3-HFPO-DA		104	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: YQ79128-002
Batch: 79128
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/03/2023 1435

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBA		89	25-150
13C4_PFHpA		87	25-150
13C5_PFHxA		79	25-150
13C5_PFPeA		85	25-150
13C6_PFDA		85	25-150
13C7_PFUdA		88	25-150
13C8_PFOA		92	25-150
13C8_PFOS		87	25-150
13C8_PFOSA		81	10-150
13C9_PFNA		78	25-150
d-EtFOSA		48	10-150
d5-EtFOSAA		89	25-150
d9-EtFOSE		76	10-150
d-MeFOSA		58	10-150
d3-MeFOSAA		87	25-150
d7-MeFOSE		78	10-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: YF23023-001MS
Batch: 79128
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/03/2023 1435

Parameter	Sample Amount (ng/L)	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9Cl-PF3ONS	ND	13	14		1	106	50-150	07/07/2023 1625
11Cl-PF3OUdS	ND	13	12		1	94	50-150	07/07/2023 1625
8:2 FTS	ND	13	12		1	90	50-150	07/07/2023 1625
6:2 FTS	ND	13	13		1	101	50-150	07/07/2023 1625
4:2 FTS	ND	13	12		1	96	50-150	07/07/2023 1625
GenX	ND	28	26		1	95	50-150	07/07/2023 1625
ADONA	ND	13	15		1	111	50-150	07/07/2023 1625
EtFOSA	ND	14	16		1	114	50-150	07/07/2023 1625
EtFOSAA	ND	14	13		1	95	50-150	07/07/2023 1625
EtFOSE	ND	14	16		1	116	50-150	07/07/2023 1625
MeFOSA	ND	14	12		1	90	50-150	07/07/2023 1625
MeFOSAA	ND	14	15		1	107	50-150	07/07/2023 1625
MeFOSE	ND	14	15		1	109	50-150	07/07/2023 1625
PFBS	5.1	12	19		1	111	50-150	07/07/2023 1625
PFDS	ND	13	13		1	100	50-150	07/07/2023 1625
PFHpS	ND	13	15		1	117	50-150	07/07/2023 1625
PFNS	ND	13	14		1	106	50-150	07/07/2023 1625
PFOSA	ND	14	13		1	96	50-150	07/07/2023 1625
PFPeS	ND	13	15		1	116	50-150	07/07/2023 1625
PFDOS	ND	13	13		1	98	50-150	07/07/2023 1625
PFHxS	4.6	13	17		1	94	50-150	07/07/2023 1625
PFBA	5.0	14	20		1	107	50-150	07/07/2023 1625
PFDA	ND	14	14		1	101	50-150	07/07/2023 1625
PFDoA	ND	14	14		1	97	50-150	07/07/2023 1625
PFHpA	1.8	14	16		1	103	50-150	07/07/2023 1625
PFHxA	2.4	14	17		1	102	50-150	07/07/2023 1625
PFNA	ND	14	13		1	97	50-150	07/07/2023 1625
PFOA	2.7	14	17		1	105	50-150	07/07/2023 1625
PFPeA	2.7	14	17		1	103	50-150	07/07/2023 1625
PFTeDA	ND	14	15		1	109	50-150	07/07/2023 1625
PFTrDA	ND	14	14		1	98	50-150	07/07/2023 1625
PFUdA	ND	14	15		1	111	50-150	07/07/2023 1625
PFOS	ND	13	16		1	126	50-150	07/07/2023 1625

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS	N	167	25-150
13C2_6:2FTS		142	25-150
13C2_8:2FTS		103	25-150
13C2_PFDoA		85	25-150
13C2_PFTeDA		81	25-150
13C3_PFBS		93	25-150
13C3_PFHxS		88	25-150
13C3-HFPO-DA		102	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: YF23023-001MS
Batch: 79128
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/03/2023 1435

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBA		72	25-150
13C4_PFHpA		92	25-150
13C5_PFHxA		93	25-150
13C5_PFPeA		89	25-150
13C6_PFDA		91	25-150
13C7_PFUdA		83	25-150
13C8_PFOA		100	25-150
13C8_PFOS		83	25-150
13C8_PFOSA		89	10-150
13C9_PFNA		87	25-150
d-EtFOSA		42	10-150
d5-EtFOSAA		86	25-150
d9-EtFOSE		62	10-150
d-MeFOSA		58	10-150
d3-MeFOSAA		87	25-150
d7-MeFOSE		65	10-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

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

PFAS by LC/MS/MS - Duplicate

Sample ID: YF23023-002DU
Batch: 79128
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/03/2023 1435

Parameter	Sample Amount (ng/L)	Result (ng/L)	Q	Dil	% RPD	%RPD Limit	Analysis Date
9Cl-PF3ONS	ND	ND		1	0.00	20	07/07/2023 1727
11Cl-PF3OUdS	ND	ND		1	0.00	20	07/07/2023 1727
8:2 FTS	ND	ND		1	0.00	20	07/07/2023 1727
6:2 FTS	ND	ND		1	0.00	20	07/07/2023 1727
4:2 FTS	ND	ND		1	0.00	20	07/07/2023 1727
GenX	ND	ND		1	0.00	20	07/07/2023 1727
ADONA	ND	ND		1	0.00	20	07/07/2023 1727
EtFOSA	ND	ND		1	0.00	20	07/07/2023 1727
EtFOSAA	ND	ND		1	0.00	20	07/07/2023 1727
EtFOSE	ND	ND		1	0.00	20	07/07/2023 1727
MeFOSA	ND	ND		1	0.00	20	07/07/2023 1727
MeFOSAA	ND	ND		1	0.00	20	07/07/2023 1727
MeFOSE	ND	ND		1	0.00	20	07/07/2023 1727
PFBS	4.9	4.8		1	3.5	20	07/07/2023 1727
PFDS	ND	ND		1	0.00	20	07/07/2023 1727
PFHpS	ND	ND		1	0.00	20	07/07/2023 1727
PFNS	ND	ND		1	0.00	20	07/07/2023 1727
PFOSA	ND	ND		1	0.00	20	07/07/2023 1727
PFPeS	ND	ND		1	0.00	20	07/07/2023 1727
PFDOS	ND	ND		1	0.00	20	07/07/2023 1727
PFHxS	2.6	2.9	J	1	12	20	07/07/2023 1727
PFBA	6.0	5.8		1	4.3	20	07/07/2023 1727
PFDA	ND	ND		1	0.00	20	07/07/2023 1727
PFDoA	ND	ND		1	0.00	20	07/07/2023 1727
PFHpA	0.92	1.2	J,+	1	25	20	07/07/2023 1727
PFHxA	2.6	2.5	J	1	0.74	20	07/07/2023 1727
PFNA	ND	ND		1	0.00	20	07/07/2023 1727
PFOA	2.6	2.6	J	1	0.060	20	07/07/2023 1727
PFPeA	2.7	2.5	J	1	8.9	20	07/07/2023 1727
PFTeDA	ND	ND		1	0.00	20	07/07/2023 1727
PFTrDA	ND	ND		1	0.00	20	07/07/2023 1727
PFUdA	ND	ND		1	0.00	20	07/07/2023 1727
PFOS	3.1	3.7		1	17	20	07/07/2023 1727

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		128	25-150
13C2_6:2FTS		135	25-150
13C2_8:2FTS		93	25-150
13C2_PFDoA		75	25-150
13C2_PFTeDA		74	25-150
13C3_PFBS		93	25-150
13C3_PFHxS		84	25-150
13C3-HFPO-DA		100	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

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

PFAS by LC/MS/MS - Duplicate

Sample ID: YF23023-002DU
Batch: 79128
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/03/2023 1435

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBA		72	25-150
13C4_PFHpA		81	25-150
13C5_PFHxA		88	25-150
13C5_PFPeA		87	25-150
13C6_PFDA		83	25-150
13C7_PFUdA		82	25-150
13C8_PFOA		94	25-150
13C8_PFOS		84	25-150
13C8_PFOSA		85	10-150
13C9_PFNA		89	25-150
d-EtFOSA		51	10-150
d5-EtFOSAA		82	25-150
d9-EtFOSE		70	10-150
d-MeFOSA		60	10-150
d3-MeFOSAA		83	25-150
d7-MeFOSE		72	10-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: YQ79212-001
Batch: 79212
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/05/2023 1154

Parameter	Result	Q	Dil	LOQ	MDL	Units	Analysis Date
9Cl-PF3ONS	ND		1	8.0	0.48	ng/L	07/07/2023 1339
11Cl-PF3OUdS	ND		1	8.0	0.66	ng/L	07/07/2023 1339
8:2 FTS	ND		1	8.0	1.6	ng/L	07/07/2023 1339
6:2 FTS	ND		1	8.0	2.0	ng/L	07/07/2023 1339
4:2 FTS	ND		1	8.0	0.87	ng/L	07/07/2023 1339
GenX	ND		1	8.0	2.1	ng/L	07/07/2023 1339
ADONA	ND		1	8.0	0.48	ng/L	07/07/2023 1339
EtFOSA	ND		1	8.0	1.4	ng/L	07/07/2023 1339
EtFOSAA	ND		1	8.0	0.75	ng/L	07/07/2023 1339
EtFOSE	ND		1	8.0	0.95	ng/L	07/07/2023 1339
MeFOSA	ND		1	16	1.3	ng/L	07/07/2023 1339
MeFOSAA	ND		1	8.0	0.93	ng/L	07/07/2023 1339
MeFOSE	ND		1	8.0	1.3	ng/L	07/07/2023 1339
PFBS	ND		1	4.0	0.41	ng/L	07/07/2023 1339
PFDS	ND		1	4.0	0.78	ng/L	07/07/2023 1339
PFHpS	ND		1	4.0	0.50	ng/L	07/07/2023 1339
PFNS	ND		1	4.0	0.71	ng/L	07/07/2023 1339
PFOSA	ND		1	4.0	0.61	ng/L	07/07/2023 1339
PFPeS	ND		1	4.0	0.59	ng/L	07/07/2023 1339
PFDOS	ND		1	8.0	1.0	ng/L	07/07/2023 1339
PFHxS	ND		1	4.0	0.55	ng/L	07/07/2023 1339
PFBA	ND		1	4.0	0.60	ng/L	07/07/2023 1339
PFDA	ND		1	4.0	0.52	ng/L	07/07/2023 1339
PFDoA	ND		1	4.0	0.47	ng/L	07/07/2023 1339
PFHpA	ND		1	4.0	0.45	ng/L	07/07/2023 1339
PFHxA	ND		1	4.0	0.69	ng/L	07/07/2023 1339
PFNA	ND		1	4.0	0.46	ng/L	07/07/2023 1339
PFOA	ND		1	4.0	0.83	ng/L	07/07/2023 1339
PFPeA	ND		1	4.0	0.54	ng/L	07/07/2023 1339
PFTeDA	ND		1	4.0	0.60	ng/L	07/07/2023 1339
PFTrDA	ND		1	4.0	0.53	ng/L	07/07/2023 1339
PFUdA	ND		1	4.0	0.63	ng/L	07/07/2023 1339
PFOS	ND		1	4.0	2.0	ng/L	07/07/2023 1339

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		97	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		104	25-150
13C2_PFDoA		93	25-150
13C2_PFTeDA		91	25-150
13C3_PFBS		96	25-150
13C3_PFHxS		99	25-150
13C3-HFPO-DA		100	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: YQ79212-001
Batch: 79212
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/05/2023 1154

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBA		100	25-150
13C4_PFHpA		100	25-150
13C5_PFHxA		99	25-150
13C5_PFPeA		97	25-150
13C6_PFDA		93	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		99	25-150
13C8_PFOS		96	25-150
13C8_PFOSA		94	10-150
13C9_PFNA		93	25-150
d-EtFOSA		55	10-150
d5-EtFOSAA		95	25-150
d9-EtFOSE		81	10-150
d-MeFOSA		54	10-150
d3-MeFOSAA		105	25-150
d7-MeFOSE		80	10-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: YQ79212-002
Batch: 79212
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/05/2023 1154

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9Cl-PF3ONS	15	15		1	103	50-150	07/07/2023 1352
11Cl-PF3OUdS	15	16		1	107	50-150	07/07/2023 1352
8:2 FTS	15	16		1	102	50-150	07/07/2023 1352
6:2 FTS	15	15		1	101	50-150	07/07/2023 1352
4:2 FTS	15	15		1	101	50-150	07/07/2023 1352
GenX	32	32		1	100	50-150	07/07/2023 1352
ADONA	15	15		1	101	50-150	07/07/2023 1352
EtFOSA	16	17		1	104	50-150	07/07/2023 1352
EtFOSAA	16	17		1	103	50-150	07/07/2023 1352
EtFOSE	16	17		1	106	50-150	07/07/2023 1352
MeFOSA	16	15		1	97	50-150	07/07/2023 1352
MeFOSAA	16	16		1	102	50-150	07/07/2023 1352
MeFOSE	16	16		1	99	50-150	07/07/2023 1352
PFBS	14	14		1	99	50-150	07/07/2023 1352
PFDS	15	16		1	101	50-150	07/07/2023 1352
PFHpS	15	15		1	101	50-150	07/07/2023 1352
PFNS	15	15		1	99	50-150	07/07/2023 1352
PFOSA	16	16		1	102	50-150	07/07/2023 1352
PFPeS	15	15		1	101	50-150	07/07/2023 1352
PFDOS	15	15		1	96	50-150	07/07/2023 1352
PFHxS	15	15		1	104	50-150	07/07/2023 1352
PFBA	16	17		1	103	50-150	07/07/2023 1352
PFDA	16	16		1	103	50-150	07/07/2023 1352
PFDoA	16	17		1	105	50-150	07/07/2023 1352
PFHpA	16	17		1	104	50-150	07/07/2023 1352
PFHxA	16	17		1	104	50-150	07/07/2023 1352
PFNA	16	16		1	103	50-150	07/07/2023 1352
PFOA	16	16		1	101	50-150	07/07/2023 1352
PFPeA	16	16		1	101	50-150	07/07/2023 1352
PFTeDA	16	16		1	102	50-150	07/07/2023 1352
PFTrDA	16	16		1	101	50-150	07/07/2023 1352
PFUdA	16	16		1	98	50-150	07/07/2023 1352
PFOS	15	15		1	101	50-150	07/07/2023 1352

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		99	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		97	25-150
13C2_PFDoA		90	25-150
13C2_PFTeDA		96	25-150
13C3_PFBS		94	25-150
13C3_PFHxS		102	25-150
13C3-HFPO-DA		99	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: YQ79212-002
Batch: 79212
Analytical Method: PFAS by ID SOP

Matrix: Aqueous
Prep Method: SOP SPE
Prep Date: 07/05/2023 1154

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBA		96	25-150
13C4_PFHpA		99	25-150
13C5_PFHxA		97	25-150
13C5_PFPeA		102	25-150
13C6_PFDA		94	25-150
13C7_PFUdA		98	25-150
13C8_PFOA		98	25-150
13C8_PFOS		93	25-150
13C8_PFOSA		92	10-150
13C9_PFNA		93	25-150
d-EtFOSA		50	10-150
d5-EtFOSAA		94	25-150
d9-EtFOSE		76	10-150
d-MeFOSA		52	10-150
d3-MeFOSAA		99	25-150
d7-MeFOSE		77	10-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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®

PACE ANALYTICAL SERVICES, LLC
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.pacelabs.com

Number 149608

Client: GZA GeoEnvironmental	Report to Contact: Sheryl.Stephenson@gza.com	Telephone No. / E-mail: 262 202 1716	Quote No.
Address: 17975 W Sarah Lane	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Brookfield	State: WI	Zip Code: 53045	Printed Name: Sheryl Stephenson
Project Name: Kinike Cleaners - Sherman			YF23023
Project No.: 20.0158385.00	P.O. No:		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Collection Date(s)	Collection Time (Military)	Sample Code (Lab Only)	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Other	PFAS
MW-3 (Sherman)	6/22/23	1039	G	X			X							X
MW-2 (Sherman)	6/22/23	1133	G	X			X							X
PZ-1 (Sherman)	6/22/23	1231	G	X			X							X
FIELD BLANK	6/22/23	1500	G	X			X							X
EQ BLANK	6/22/23	1505	G	X			X							X

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	6/22/23	5:00pm	1. Received by: FED EX	6/22/23	5:00pm
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: fedex	Date: 6.23.23	Time: 950	4. Laboratory received by	Date: 6-23-23	Time: 950

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Circle) (Y) N Ice Pack — Receipt Temp: 1.9 °C — Temp Blank Y N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: ME003N2-01

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: KDRW / 05/23/2023 Lot #: YF23023

Means of receipt: ☐ Pace ☐ Client ☐ UPS ☑ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ 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-Cup ID: NA

1.9 / 1.9 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 8 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☑ Yes	☐ No	☐ 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).
☑ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC and all sample containers?
☑ Yes	☐ No		7. Was collection date & time listed on the COC and all sample containers?
☑ Yes	☐ No		8. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		9. Were tests to be performed listed on the COC?
☑ Yes	☐ No		10. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		11. Was adequate sample volume available?
☑ Yes	☐ No		12. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☑ Yes	☐ No		13. Were all samples containers accounted for? (No missing/excess)
☐ Yes	☐ No	☑ NA	14. Were VOA, 8015C and RSK-175 samples free of bubbles >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	15. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	16. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	17. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☑ No	☐ NA	18. Was the quote number listed on the container label? If yes, Quote #

Sample Preservation (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: H_2SO_4, HNO_3, 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.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Unique ID: NA.

Comments:

Qualtrax ID: 56360 Pace® Analytical Services, LLC Page 1 of 1

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 25, 2023

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

RE: Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Dear Sheryl Stephenson:

Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 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,

Christopher Hyska

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

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40267060001	**MW-2**	Water	08/21/23 10:39	08/22/23 09:25
40267060002	**MW-3**	Water	08/21/23 11:58	08/22/23 09:25
40267060003	**MW-4**	Water	08/21/23 13:30	08/22/23 09:25
40267060004	**PZ-4**	Water	08/21/23 13:58	08/22/23 09:25
40267060005	**TRIP BLANK**	Water	08/21/23 00:00	08/22/23 09:25

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40267060001	**MW-2**	EPA 8260	EIB	65	PASI-G
40267060002	**MW-3**	EPA 8260	EIB	65	PASI-G
40267060003	**MW-4**	EPA 8260	EIB	65	PASI-G
40267060004	**PZ-4**	EPA 8260	EIB	65	PASI-G
40267060005	**TRIP BLANK**	EPA 8260	EIB	65	PASI-G

PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40267060001	**MW-2**					
EPA 8260	Tetrachloroethene	1.7	ug/L	1.0	08/23/23 16:13	
40267060002	**MW-3**					
EPA 8260	Tetrachloroethene	19.4	ug/L	1.0	08/23/23 16:32	
EPA 8260	Trichlorofluoromethane	0.42J	ug/L	1.0	08/23/23 16:32	
40267060003	**MW-4**					
EPA 8260	Tetrachloroethene	12.6	ug/L	1.0	08/23/23 16:52	
40267060004	**PZ-4**					
EPA 8260	Tetrachloroethene	24.3	ug/L	1.0	08/23/23 17:11	

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Sample: MW-2 **Lab ID: 40267060001** Collected: 08/21/23 10:39 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:13	630-20-6	
1,1,1-Trichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:13	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.38**	ug/L	1.0	0.38	1		08/23/23 16:13	79-34-5	
1,1,2-Trichloroethane	**<0.34**	ug/L	1.0	0.34	1		08/23/23 16:13	79-00-5	
1,1-Dichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:13	75-34-3	
1,1-Dichloroethene	**<0.58**	ug/L	1.0	0.58	1		08/23/23 16:13	75-35-4	
1,1-Dichloropropene	**<0.41**	ug/L	1.0	0.41	1		08/23/23 16:13	563-58-6	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 16:13	87-61-6	
1,2,3-Trichloropropane	**<0.56**	ug/L	1.0	0.56	1		08/23/23 16:13	96-18-4	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/23/23 16:13	120-82-1	
1,2,4-Trimethylbenzene	**<0.45**	ug/L	1.0	0.45	1		08/23/23 16:13	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.4**	ug/L	5.0	2.4	1		08/23/23 16:13	96-12-8	
1,2-Dibromoethane (EDB)	**<0.31**	ug/L	1.0	0.31	1		08/23/23 16:13	106-93-4	
1,2-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 16:13	95-50-1	
1,2-Dichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/23/23 16:13	107-06-2	
1,2-Dichloropropane	**<0.45**	ug/L	1.0	0.45	1		08/23/23 16:13	78-87-5	
1,3,5-Trimethylbenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:13	108-67-8	
1,3-Dichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 16:13	541-73-1	
1,3-Dichloropropane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:13	142-28-9	
1,4-Dichlorobenzene	**<0.89**	ug/L	1.0	0.89	1		08/23/23 16:13	106-46-7	
2,2-Dichloropropane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:13	594-20-7	
2-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 16:13	95-49-8	
4-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 16:13	106-43-4	
Benzene	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:13	71-43-2	
Bromobenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:13	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:13	74-97-5	
Bromodichloromethane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:13	75-27-4	
Bromoform	**<0.43**	ug/L	1.0	0.43	1		08/23/23 16:13	75-25-2	
Bromomethane	**<1.2**	ug/L	5.0	1.2	1		08/23/23 16:13	74-83-9	
Carbon tetrachloride	**<0.37**	ug/L	1.0	0.37	1		08/23/23 16:13	56-23-5	
Chlorobenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 16:13	108-90-7	
Chloroethane	**<1.4**	ug/L	5.0	1.4	1		08/23/23 16:13	75-00-3	
Chloroform	**<0.50**	ug/L	5.0	0.50	1		08/23/23 16:13	67-66-3	
Chloromethane	**<1.6**	ug/L	5.0	1.6	1		08/23/23 16:13	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	5.0	2.6	1		08/23/23 16:13	124-48-1	
Dibromomethane	**<0.99**	ug/L	5.0	0.99	1		08/23/23 16:13	74-95-3	
Dichlorodifluoromethane	**<0.46**	ug/L	5.0	0.46	1		08/23/23 16:13	75-71-8	
Diisopropyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 16:13	108-20-3	
Ethylbenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 16:13	100-41-4	
Hexachloro-1,3-butadiene	**<2.7**	ug/L	5.0	2.7	1		08/23/23 16:13	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	5.0	1.0	1		08/23/23 16:13	98-82-8	
Methyl-tert-butyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 16:13	1634-04-4	
Methylene Chloride	**<0.32**	ug/L	5.0	0.32	1		08/23/23 16:13	75-09-2	
Naphthalene	**<1.9**	ug/L	5.0	1.9	1		08/23/23 16:13	91-20-3	
Styrene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:13	100-42-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Sample: MW-2 **Lab ID: 40267060001** Collected: 08/21/23 10:39 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Tetrachloroethene	**1.7**	ug/L	1.0	0.41	1		08/23/23 16:13	127-18-4	
Toluene	**<0.29**	ug/L	1.0	0.29	1		08/23/23 16:13	108-88-3	
Trichloroethene	**<0.32**	ug/L	1.0	0.32	1		08/23/23 16:13	79-01-6	
Trichlorofluoromethane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:13	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/23/23 16:13	75-01-4	
Xylene (Total)	**<1.0**	ug/L	3.0	1.0	1		08/23/23 16:13	1330-20-7	
cis-1,2-Dichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/23/23 16:13	156-59-2	
cis-1,3-Dichloropropene	**<0.24**	ug/L	1.0	0.24	1		08/23/23 16:13	10061-01-5	
m&p-Xylene	**<0.70**	ug/L	2.0	0.70	1		08/23/23 16:13	179601-23-1	
n-Butylbenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 16:13	104-51-8	
n-Propylbenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 16:13	103-65-1	
o-Xylene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 16:13	95-47-6	
p-Isopropyltoluene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 16:13	99-87-6	
sec-Butylbenzene	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:13	135-98-8	
tert-Butylbenzene	**<0.59**	ug/L	1.0	0.59	1		08/23/23 16:13	98-06-6	
trans-1,2-Dichloroethene	**<0.53**	ug/L	1.0	0.53	1		08/23/23 16:13	156-60-5	
trans-1,3-Dichloropropene	**<0.27**	ug/L	1.0	0.27	1		08/23/23 16:13	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/23/23 16:13	460-00-4	
1,2-Dichlorobenzene-d4 (S)	102	%	70-130		1		08/23/23 16:13	2199-69-1	
Toluene-d8 (S)	103	%	70-130		1		08/23/23 16:13	2037-26-5	

Sample: MW-3 **Lab ID: 40267060002** Collected: 08/21/23 11:58 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:32	630-20-6	
1,1,1-Trichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:32	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.38**	ug/L	1.0	0.38	1		08/23/23 16:32	79-34-5	
1,1,2-Trichloroethane	**<0.34**	ug/L	1.0	0.34	1		08/23/23 16:32	79-00-5	
1,1-Dichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:32	75-34-3	
1,1-Dichloroethene	**<0.58**	ug/L	1.0	0.58	1		08/23/23 16:32	75-35-4	
1,1-Dichloropropene	**<0.41**	ug/L	1.0	0.41	1		08/23/23 16:32	563-58-6	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 16:32	87-61-6	
1,2,3-Trichloropropane	**<0.56**	ug/L	1.0	0.56	1		08/23/23 16:32	96-18-4	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/23/23 16:32	120-82-1	
1,2,4-Trimethylbenzene	**<0.45**	ug/L	1.0	0.45	1		08/23/23 16:32	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.4**	ug/L	5.0	2.4	1		08/23/23 16:32	96-12-8	
1,2-Dibromoethane (EDB)	**<0.31**	ug/L	1.0	0.31	1		08/23/23 16:32	106-93-4	
1,2-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 16:32	95-50-1	
1,2-Dichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/23/23 16:32	107-06-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Sample: MW-3 **Lab ID: 40267060002** Collected: 08/21/23 11:58 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,2-Dichloropropane	**<0.45**	ug/L	1.0	0.45	1		08/23/23 16:32	78-87-5	
1,3,5-Trimethylbenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:32	108-67-8	
1,3-Dichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 16:32	541-73-1	
1,3-Dichloropropane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:32	142-28-9	
1,4-Dichlorobenzene	**<0.89**	ug/L	1.0	0.89	1		08/23/23 16:32	106-46-7	
2,2-Dichloropropane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:32	594-20-7	
2-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 16:32	95-49-8	
4-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 16:32	106-43-4	
Benzene	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:32	71-43-2	
Bromobenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:32	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:32	74-97-5	
Bromodichloromethane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:32	75-27-4	
Bromoform	**<0.43**	ug/L	1.0	0.43	1		08/23/23 16:32	75-25-2	
Bromomethane	**<1.2**	ug/L	5.0	1.2	1		08/23/23 16:32	74-83-9	
Carbon tetrachloride	**<0.37**	ug/L	1.0	0.37	1		08/23/23 16:32	56-23-5	
Chlorobenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 16:32	108-90-7	
Chloroethane	**<1.4**	ug/L	5.0	1.4	1		08/23/23 16:32	75-00-3	
Chloroform	**<0.50**	ug/L	5.0	0.50	1		08/23/23 16:32	67-66-3	
Chloromethane	**<1.6**	ug/L	5.0	1.6	1		08/23/23 16:32	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	5.0	2.6	1		08/23/23 16:32	124-48-1	
Dibromomethane	**<0.99**	ug/L	5.0	0.99	1		08/23/23 16:32	74-95-3	
Dichlorodifluoromethane	**<0.46**	ug/L	5.0	0.46	1		08/23/23 16:32	75-71-8	
Diisopropyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 16:32	108-20-3	
Ethylbenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 16:32	100-41-4	
Hexachloro-1,3-butadiene	**<2.7**	ug/L	5.0	2.7	1		08/23/23 16:32	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	5.0	1.0	1		08/23/23 16:32	98-82-8	
Methyl-tert-butyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 16:32	1634-04-4	
Methylene Chloride	**<0.32**	ug/L	5.0	0.32	1		08/23/23 16:32	75-09-2	
Naphthalene	**<1.9**	ug/L	5.0	1.9	1		08/23/23 16:32	91-20-3	
Styrene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:32	100-42-5	
Tetrachloroethene	**19.4**	ug/L	1.0	0.41	1		08/23/23 16:32	127-18-4	
Toluene	**<0.29**	ug/L	1.0	0.29	1		08/23/23 16:32	108-88-3	
Trichloroethene	**<0.32**	ug/L	1.0	0.32	1		08/23/23 16:32	79-01-6	
Trichlorofluoromethane	**0.42J**	ug/L	1.0	0.42	1		08/23/23 16:32	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/23/23 16:32	75-01-4	
Xylene (Total)	**<1.0**	ug/L	3.0	1.0	1		08/23/23 16:32	1330-20-7	
cis-1,2-Dichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/23/23 16:32	156-59-2	
cis-1,3-Dichloropropene	**<0.24**	ug/L	1.0	0.24	1		08/23/23 16:32	10061-01-5	
m&p-Xylene	**<0.70**	ug/L	2.0	0.70	1		08/23/23 16:32	179601-23-1	
n-Butylbenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 16:32	104-51-8	
n-Propylbenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 16:32	103-65-1	
o-Xylene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 16:32	95-47-6	
p-Isopropyltoluene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 16:32	99-87-6	
sec-Butylbenzene	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:32	135-98-8	
tert-Butylbenzene	**<0.59**	ug/L	1.0	0.59	1		08/23/23 16:32	98-06-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Sample: MW-3 **Lab ID: 40267060002** Collected: 08/21/23 11:58 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
trans-1,2-Dichloroethene	**<0.53**	ug/L	1.0	0.53	1		08/23/23 16:32	156-60-5	
trans-1,3-Dichloropropene	**<0.27**	ug/L	1.0	0.27	1		08/23/23 16:32	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		08/23/23 16:32	460-00-4	
1,2-Dichlorobenzene-d4 (S)	98	%	70-130		1		08/23/23 16:32	2199-69-1	
Toluene-d8 (S)	103	%	70-130		1		08/23/23 16:32	2037-26-5	

Sample: MW-4 **Lab ID: 40267060003** Collected: 08/21/23 13:30 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:52	630-20-6	
1,1,1-Trichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:52	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.38**	ug/L	1.0	0.38	1		08/23/23 16:52	79-34-5	
1,1,2-Trichloroethane	**<0.34**	ug/L	1.0	0.34	1		08/23/23 16:52	79-00-5	
1,1-Dichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:52	75-34-3	
1,1-Dichloroethene	**<0.58**	ug/L	1.0	0.58	1		08/23/23 16:52	75-35-4	
1,1-Dichloropropene	**<0.41**	ug/L	1.0	0.41	1		08/23/23 16:52	563-58-6	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 16:52	87-61-6	
1,2,3-Trichloropropane	**<0.56**	ug/L	1.0	0.56	1		08/23/23 16:52	96-18-4	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/23/23 16:52	120-82-1	
1,2,4-Trimethylbenzene	**<0.45**	ug/L	1.0	0.45	1		08/23/23 16:52	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.4**	ug/L	5.0	2.4	1		08/23/23 16:52	96-12-8	
1,2-Dibromoethane (EDB)	**<0.31**	ug/L	1.0	0.31	1		08/23/23 16:52	106-93-4	
1,2-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 16:52	95-50-1	
1,2-Dichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/23/23 16:52	107-06-2	
1,2-Dichloropropane	**<0.45**	ug/L	1.0	0.45	1		08/23/23 16:52	78-87-5	
1,3,5-Trimethylbenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:52	108-67-8	
1,3-Dichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 16:52	541-73-1	
1,3-Dichloropropane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:52	142-28-9	
1,4-Dichlorobenzene	**<0.89**	ug/L	1.0	0.89	1		08/23/23 16:52	106-46-7	
2,2-Dichloropropane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:52	594-20-7	
2-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 16:52	95-49-8	
4-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 16:52	106-43-4	
Benzene	**<0.30**	ug/L	1.0	0.30	1		08/23/23 16:52	71-43-2	
Bromobenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:52	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:52	74-97-5	
Bromodichloromethane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:52	75-27-4	
Bromoform	**<0.43**	ug/L	1.0	0.43	1		08/23/23 16:52	75-25-2	
Bromomethane	**<1.2**	ug/L	5.0	1.2	1		08/23/23 16:52	74-83-9	
Carbon tetrachloride	**<0.37**	ug/L	1.0	0.37	1		08/23/23 16:52	56-23-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Sample: MW-4 **Lab ID: 40267060003** Collected: 08/21/23 13:30 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
Chlorobenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 16:52	108-90-7	
Chloroethane	**<1.4**	ug/L	5.0	1.4	1		08/23/23 16:52	75-00-3	
Chloroform	**<0.50**	ug/L	5.0	0.50	1		08/23/23 16:52	67-66-3	
Chloromethane	**<1.6**	ug/L	5.0	1.6	1		08/23/23 16:52	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	5.0	2.6	1		08/23/23 16:52	124-48-1	
Dibromomethane	**<0.99**	ug/L	5.0	0.99	1		08/23/23 16:52	74-95-3	
Dichlorodifluoromethane	**<0.46**	ug/L	5.0	0.46	1		08/23/23 16:52	75-71-8	
Diisopropyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 16:52	108-20-3	
Ethylbenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 16:52	100-41-4	
Hexachloro-1,3-butadiene	**<2.7**	ug/L	5.0	2.7	1		08/23/23 16:52	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	5.0	1.0	1		08/23/23 16:52	98-82-8	
Methyl-tert-butyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 16:52	1634-04-4	
Methylene Chloride	**<0.32**	ug/L	5.0	0.32	1		08/23/23 16:52	75-09-2	
Naphthalene	**<1.9**	ug/L	5.0	1.9	1		08/23/23 16:52	91-20-3	
Styrene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 16:52	100-42-5	
Tetrachloroethene	**12.6**	ug/L	1.0	0.41	1		08/23/23 16:52	127-18-4	
Toluene	**<0.29**	ug/L	1.0	0.29	1		08/23/23 16:52	108-88-3	
Trichloroethene	**<0.32**	ug/L	1.0	0.32	1		08/23/23 16:52	79-01-6	
Trichlorofluoromethane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:52	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/23/23 16:52	75-01-4	
Xylene (Total)	**<1.0**	ug/L	3.0	1.0	1		08/23/23 16:52	1330-20-7	
cis-1,2-Dichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/23/23 16:52	156-59-2	
cis-1,3-Dichloropropene	**<0.24**	ug/L	1.0	0.24	1		08/23/23 16:52	10061-01-5	
m&p-Xylene	**<0.70**	ug/L	2.0	0.70	1		08/23/23 16:52	179601-23-1	
n-Butylbenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 16:52	104-51-8	
n-Propylbenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 16:52	103-65-1	
o-Xylene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 16:52	95-47-6	
p-Isopropyltoluene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 16:52	99-87-6	
sec-Butylbenzene	**<0.42**	ug/L	1.0	0.42	1		08/23/23 16:52	135-98-8	
tert-Butylbenzene	**<0.59**	ug/L	1.0	0.59	1		08/23/23 16:52	98-06-6	
trans-1,2-Dichloroethene	**<0.53**	ug/L	1.0	0.53	1		08/23/23 16:52	156-60-5	
trans-1,3-Dichloropropene	**<0.27**	ug/L	1.0	0.27	1		08/23/23 16:52	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/23/23 16:52	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	70-130		1		08/23/23 16:52	2199-69-1	
Toluene-d8 (S)	104	%	70-130		1		08/23/23 16:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Sample: PZ-4 **Lab ID: 40267060004** Collected: 08/21/23 13:58 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 17:11	630-20-6	
1,1,1-Trichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 17:11	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.38**	ug/L	1.0	0.38	1		08/23/23 17:11	79-34-5	
1,1,2-Trichloroethane	**<0.34**	ug/L	1.0	0.34	1		08/23/23 17:11	79-00-5	
1,1-Dichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 17:11	75-34-3	
1,1-Dichloroethene	**<0.58**	ug/L	1.0	0.58	1		08/23/23 17:11	75-35-4	
1,1-Dichloropropene	**<0.41**	ug/L	1.0	0.41	1		08/23/23 17:11	563-58-6	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 17:11	87-61-6	
1,2,3-Trichloropropane	**<0.56**	ug/L	1.0	0.56	1		08/23/23 17:11	96-18-4	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/23/23 17:11	120-82-1	
1,2,4-Trimethylbenzene	**<0.45**	ug/L	1.0	0.45	1		08/23/23 17:11	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.4**	ug/L	5.0	2.4	1		08/23/23 17:11	96-12-8	
1,2-Dibromoethane (EDB)	**<0.31**	ug/L	1.0	0.31	1		08/23/23 17:11	106-93-4	
1,2-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 17:11	95-50-1	
1,2-Dichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/23/23 17:11	107-06-2	
1,2-Dichloropropane	**<0.45**	ug/L	1.0	0.45	1		08/23/23 17:11	78-87-5	
1,3,5-Trimethylbenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 17:11	108-67-8	
1,3-Dichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 17:11	541-73-1	
1,3-Dichloropropane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 17:11	142-28-9	
1,4-Dichlorobenzene	**<0.89**	ug/L	1.0	0.89	1		08/23/23 17:11	106-46-7	
2,2-Dichloropropane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 17:11	594-20-7	
2-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 17:11	95-49-8	
4-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 17:11	106-43-4	
Benzene	**<0.30**	ug/L	1.0	0.30	1		08/23/23 17:11	71-43-2	
Bromobenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 17:11	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 17:11	74-97-5	
Bromodichloromethane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 17:11	75-27-4	
Bromoform	**<0.43**	ug/L	1.0	0.43	1		08/23/23 17:11	75-25-2	
Bromomethane	**<1.2**	ug/L	5.0	1.2	1		08/23/23 17:11	74-83-9	
Carbon tetrachloride	**<0.37**	ug/L	1.0	0.37	1		08/23/23 17:11	56-23-5	
Chlorobenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 17:11	108-90-7	
Chloroethane	**<1.4**	ug/L	5.0	1.4	1		08/23/23 17:11	75-00-3	
Chloroform	**<0.50**	ug/L	5.0	0.50	1		08/23/23 17:11	67-66-3	
Chloromethane	**<1.6**	ug/L	5.0	1.6	1		08/23/23 17:11	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	5.0	2.6	1		08/23/23 17:11	124-48-1	
Dibromomethane	**<0.99**	ug/L	5.0	0.99	1		08/23/23 17:11	74-95-3	
Dichlorodifluoromethane	**<0.46**	ug/L	5.0	0.46	1		08/23/23 17:11	75-71-8	
Diisopropyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 17:11	108-20-3	
Ethylbenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 17:11	100-41-4	
Hexachloro-1,3-butadiene	**<2.7**	ug/L	5.0	2.7	1		08/23/23 17:11	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	5.0	1.0	1		08/23/23 17:11	98-82-8	
Methyl-tert-butyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 17:11	1634-04-4	
Methylene Chloride	**<0.32**	ug/L	5.0	0.32	1		08/23/23 17:11	75-09-2	
Naphthalene	**<1.9**	ug/L	5.0	1.9	1		08/23/23 17:11	91-20-3	
Styrene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 17:11	100-42-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Sample: PZ-4 **Lab ID: 40267060004** Collected: 08/21/23 13:58 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
Tetrachloroethene	**24.3**	ug/L	1.0	0.41	1		08/23/23 17:11	127-18-4	
Toluene	**<0.29**	ug/L	1.0	0.29	1		08/23/23 17:11	108-88-3	
Trichloroethene	**<0.32**	ug/L	1.0	0.32	1		08/23/23 17:11	79-01-6	
Trichlorofluoromethane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 17:11	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/23/23 17:11	75-01-4	
Xylene (Total)	**<1.0**	ug/L	3.0	1.0	1		08/23/23 17:11	1330-20-7	
cis-1,2-Dichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/23/23 17:11	156-59-2	
cis-1,3-Dichloropropene	**<0.24**	ug/L	1.0	0.24	1		08/23/23 17:11	10061-01-5	
m&p-Xylene	**<0.70**	ug/L	2.0	0.70	1		08/23/23 17:11	179601-23-1	
n-Butylbenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 17:11	104-51-8	
n-Propylbenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 17:11	103-65-1	
o-Xylene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 17:11	95-47-6	
p-Isopropyltoluene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 17:11	99-87-6	
sec-Butylbenzene	**<0.42**	ug/L	1.0	0.42	1		08/23/23 17:11	135-98-8	
tert-Butylbenzene	**<0.59**	ug/L	1.0	0.59	1		08/23/23 17:11	98-06-6	
trans-1,2-Dichloroethene	**<0.53**	ug/L	1.0	0.53	1		08/23/23 17:11	156-60-5	
trans-1,3-Dichloropropene	**<0.27**	ug/L	1.0	0.27	1		08/23/23 17:11	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/23/23 17:11	460-00-4	
1,2-Dichlorobenzene-d4 (S)	102	%	70-130		1		08/23/23 17:11	2199-69-1	
Toluene-d8 (S)	104	%	70-130		1		08/23/23 17:11	2037-26-5	

Sample: TRIP BLANK **Lab ID: 40267060005** Collected: 08/21/23 00:00 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 11:58	630-20-6	
1,1,1-Trichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 11:58	71-55-6	
1,1,2,2-Tetrachloroethane	**<0.38**	ug/L	1.0	0.38	1		08/23/23 11:58	79-34-5	
1,1,2-Trichloroethane	**<0.34**	ug/L	1.0	0.34	1		08/23/23 11:58	79-00-5	
1,1-Dichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 11:58	75-34-3	
1,1-Dichloroethene	**<0.58**	ug/L	1.0	0.58	1		08/23/23 11:58	75-35-4	
1,1-Dichloropropene	**<0.41**	ug/L	1.0	0.41	1		08/23/23 11:58	563-58-6	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 11:58	87-61-6	
1,2,3-Trichloropropane	**<0.56**	ug/L	1.0	0.56	1		08/23/23 11:58	96-18-4	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/23/23 11:58	120-82-1	
1,2,4-Trimethylbenzene	**<0.45**	ug/L	1.0	0.45	1		08/23/23 11:58	95-63-6	
1,2-Dibromo-3-chloropropane	**<2.4**	ug/L	5.0	2.4	1		08/23/23 11:58	96-12-8	
1,2-Dibromoethane (EDB)	**<0.31**	ug/L	1.0	0.31	1		08/23/23 11:58	106-93-4	
1,2-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 11:58	95-50-1	
1,2-Dichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/23/23 11:58	107-06-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Sample: TRIP BLANK **Lab ID: 40267060005** Collected: 08/21/23 00:00 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,2-Dichloropropane	**<0.45**	ug/L	1.0	0.45	1		08/23/23 11:58	78-87-5	
1,3,5-Trimethylbenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 11:58	108-67-8	
1,3-Dichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 11:58	541-73-1	
1,3-Dichloropropane	**<0.30**	ug/L	1.0	0.30	1		08/23/23 11:58	142-28-9	
1,4-Dichlorobenzene	**<0.89**	ug/L	1.0	0.89	1		08/23/23 11:58	106-46-7	
2,2-Dichloropropane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 11:58	594-20-7	
2-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 11:58	95-49-8	
4-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/23/23 11:58	106-43-4	
Benzene	**<0.30**	ug/L	1.0	0.30	1		08/23/23 11:58	71-43-2	
Bromobenzene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 11:58	108-86-1	
Bromochloromethane	**<0.36**	ug/L	1.0	0.36	1		08/23/23 11:58	74-97-5	
Bromodichloromethane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 11:58	75-27-4	
Bromoform	**<0.43**	ug/L	1.0	0.43	1		08/23/23 11:58	75-25-2	
Bromomethane	**<1.2**	ug/L	5.0	1.2	1		08/23/23 11:58	74-83-9	
Carbon tetrachloride	**<0.37**	ug/L	1.0	0.37	1		08/23/23 11:58	56-23-5	
Chlorobenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 11:58	108-90-7	
Chloroethane	**<1.4**	ug/L	5.0	1.4	1		08/23/23 11:58	75-00-3	
Chloroform	**<0.50**	ug/L	5.0	0.50	1		08/23/23 11:58	67-66-3	
Chloromethane	**<1.6**	ug/L	5.0	1.6	1		08/23/23 11:58	74-87-3	
Dibromochloromethane	**<2.6**	ug/L	5.0	2.6	1		08/23/23 11:58	124-48-1	
Dibromomethane	**<0.99**	ug/L	5.0	0.99	1		08/23/23 11:58	74-95-3	
Dichlorodifluoromethane	**<0.46**	ug/L	5.0	0.46	1		08/23/23 11:58	75-71-8	
Diisopropyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 11:58	108-20-3	
Ethylbenzene	**<0.33**	ug/L	1.0	0.33	1		08/23/23 11:58	100-41-4	
Hexachloro-1,3-butadiene	**<2.7**	ug/L	5.0	2.7	1		08/23/23 11:58	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	5.0	1.0	1		08/23/23 11:58	98-82-8	
Methyl-tert-butyl ether	**<1.1**	ug/L	5.0	1.1	1		08/23/23 11:58	1634-04-4	
Methylene Chloride	**<0.32**	ug/L	5.0	0.32	1		08/23/23 11:58	75-09-2	
Naphthalene	**<1.9**	ug/L	5.0	1.9	1		08/23/23 11:58	91-20-3	
Styrene	**<0.36**	ug/L	1.0	0.36	1		08/23/23 11:58	100-42-5	
Tetrachloroethene	**<0.41**	ug/L	1.0	0.41	1		08/23/23 11:58	127-18-4	
Toluene	**<0.29**	ug/L	1.0	0.29	1		08/23/23 11:58	108-88-3	
Trichloroethene	**<0.32**	ug/L	1.0	0.32	1		08/23/23 11:58	79-01-6	
Trichlorofluoromethane	**<0.42**	ug/L	1.0	0.42	1		08/23/23 11:58	75-69-4	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/23/23 11:58	75-01-4	
Xylene (Total)	**<1.0**	ug/L	3.0	1.0	1		08/23/23 11:58	1330-20-7	
cis-1,2-Dichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/23/23 11:58	156-59-2	
cis-1,3-Dichloropropene	**<0.24**	ug/L	1.0	0.24	1		08/23/23 11:58	10061-01-5	
m&p-Xylene	**<0.70**	ug/L	2.0	0.70	1		08/23/23 11:58	179601-23-1	
n-Butylbenzene	**<0.86**	ug/L	1.0	0.86	1		08/23/23 11:58	104-51-8	
n-Propylbenzene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 11:58	103-65-1	
o-Xylene	**<0.35**	ug/L	1.0	0.35	1		08/23/23 11:58	95-47-6	
p-Isopropyltoluene	**<1.0**	ug/L	5.0	1.0	1		08/23/23 11:58	99-87-6	
sec-Butylbenzene	**<0.42**	ug/L	1.0	0.42	1		08/23/23 11:58	135-98-8	
tert-Butylbenzene	**<0.59**	ug/L	1.0	0.59	1		08/23/23 11:58	98-06-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Sample: TRIP BLANK **Lab ID: 40267060005** Collected: 08/21/23 00:00 Received: 08/22/23 09:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
trans-1,2-Dichloroethene	**<0.53**	ug/L	1.0	0.53	1		08/23/23 11:58	156-60-5	
trans-1,3-Dichloropropene	**<0.27**	ug/L	1.0	0.27	1		08/23/23 11:58	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/23/23 11:58	460-00-4	
1,2-Dichlorobenzene-d4 (S)	101	%	70-130		1		08/23/23 11:58	2199-69-1	
Toluene-d8 (S)	102	%	70-130		1		08/23/23 11:58	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

QC Batch: 452986
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40267060001, 40267060002, 40267060003, 40267060004, 40267060005

METHOD BLANK: 2602346 Matrix: Water
Associated Lab Samples: 40267060001, 40267060002, 40267060003, 40267060004, 40267060005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.36	1.0	08/23/23 09:40	
1,1,1-Trichloroethane	ug/L	<0.30	1.0	08/23/23 09:40	
1,1,2,2-Tetrachloroethane	ug/L	<0.38	1.0	08/23/23 09:40	
1,1,2-Trichloroethane	ug/L	<0.34	1.0	08/23/23 09:40	
1,1-Dichloroethane	ug/L	<0.30	1.0	08/23/23 09:40	
1,1-Dichloroethene	ug/L	<0.58	1.0	08/23/23 09:40	
1,1-Dichloropropene	ug/L	<0.41	1.0	08/23/23 09:40	
1,2,3-Trichlorobenzene	ug/L	<1.0	5.0	08/23/23 09:40	
1,2,3-Trichloropropane	ug/L	<0.56	1.0	08/23/23 09:40	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	08/23/23 09:40	
1,2,4-Trimethylbenzene	ug/L	<0.45	1.0	08/23/23 09:40	
1,2-Dibromo-3-chloropropane	ug/L	<2.4	5.0	08/23/23 09:40	
1,2-Dibromoethane (EDB)	ug/L	<0.31	1.0	08/23/23 09:40	
1,2-Dichlorobenzene	ug/L	<0.33	1.0	08/23/23 09:40	
1,2-Dichloroethane	ug/L	<0.29	1.0	08/23/23 09:40	
1,2-Dichloropropane	ug/L	<0.45	1.0	08/23/23 09:40	
1,3,5-Trimethylbenzene	ug/L	<0.36	1.0	08/23/23 09:40	
1,3-Dichlorobenzene	ug/L	<0.35	1.0	08/23/23 09:40	
1,3-Dichloropropane	ug/L	<0.30	1.0	08/23/23 09:40	
1,4-Dichlorobenzene	ug/L	<0.89	1.0	08/23/23 09:40	
2,2-Dichloropropane	ug/L	<0.42	1.0	08/23/23 09:40	
2-Chlorotoluene	ug/L	<0.89	5.0	08/23/23 09:40	
4-Chlorotoluene	ug/L	<0.89	5.0	08/23/23 09:40	
Benzene	ug/L	<0.30	1.0	08/23/23 09:40	
Bromobenzene	ug/L	<0.36	1.0	08/23/23 09:40	
Bromochloromethane	ug/L	<0.36	1.0	08/23/23 09:40	
Bromodichloromethane	ug/L	<0.42	1.0	08/23/23 09:40	
Bromoform	ug/L	<0.43	1.0	08/23/23 09:40	
Bromomethane	ug/L	<1.2	5.0	08/23/23 09:40	
Carbon tetrachloride	ug/L	<0.37	1.0	08/23/23 09:40	
Chlorobenzene	ug/L	<0.86	1.0	08/23/23 09:40	
Chloroethane	ug/L	<1.4	5.0	08/23/23 09:40	
Chloroform	ug/L	<0.50	5.0	08/23/23 09:40	
Chloromethane	ug/L	<1.6	5.0	08/23/23 09:40	
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	08/23/23 09:40	
cis-1,3-Dichloropropene	ug/L	<0.24	1.0	08/23/23 09:40	
Dibromochloromethane	ug/L	<2.6	5.0	08/23/23 09:40	
Dibromomethane	ug/L	<0.99	5.0	08/23/23 09:40	
Dichlorodifluoromethane	ug/L	<0.46	5.0	08/23/23 09:40	
Diisopropyl ether	ug/L	<1.1	5.0	08/23/23 09:40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

METHOD BLANK: 2602346 Matrix: Water
Associated Lab Samples: 40267060001, 40267060002, 40267060003, 40267060004, 40267060005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.33	1.0	08/23/23 09:40	
Hexachloro-1,3-butadiene	ug/L	<2.7	5.0	08/23/23 09:40	
Isopropylbenzene (Cumene)	ug/L	<1.0	5.0	08/23/23 09:40	
m&p-Xylene	ug/L	<0.70	2.0	08/23/23 09:40	
Methyl-tert-butyl ether	ug/L	<1.1	5.0	08/23/23 09:40	
Methylene Chloride	ug/L	<0.32	5.0	08/23/23 09:40	
n-Butylbenzene	ug/L	<0.86	1.0	08/23/23 09:40	
n-Propylbenzene	ug/L	<0.35	1.0	08/23/23 09:40	
Naphthalene	ug/L	<1.9	5.0	08/23/23 09:40	
o-Xylene	ug/L	<0.35	1.0	08/23/23 09:40	
p-Isopropyltoluene	ug/L	<1.0	5.0	08/23/23 09:40	
sec-Butylbenzene	ug/L	<0.42	1.0	08/23/23 09:40	
Styrene	ug/L	<0.36	1.0	08/23/23 09:40	
tert-Butylbenzene	ug/L	<0.59	1.0	08/23/23 09:40	
Tetrachloroethene	ug/L	<0.41	1.0	08/23/23 09:40	
Toluene	ug/L	<0.29	1.0	08/23/23 09:40	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	08/23/23 09:40	
trans-1,3-Dichloropropene	ug/L	<0.27	1.0	08/23/23 09:40	
Trichloroethene	ug/L	<0.32	1.0	08/23/23 09:40	
Trichlorofluoromethane	ug/L	<0.42	1.0	08/23/23 09:40	
Vinyl chloride	ug/L	<0.17	1.0	08/23/23 09:40	
Xylene (Total)	ug/L	<1.0	3.0	08/23/23 09:40	
1,2-Dichlorobenzene-d4 (S)	%	101	70-130	08/23/23 09:40	
4-Bromofluorobenzene (S)	%	100	70-130	08/23/23 09:40	
Toluene-d8 (S)	%	104	70-130	08/23/23 09:40	

LABORATORY CONTROL SAMPLE: 2602347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.4	111	70-134	
1,1,2,2-Tetrachloroethane	ug/L	50	49.2	98	69-130	
1,1,2-Trichloroethane	ug/L	50	50.5	101	70-130	
1,1-Dichloroethane	ug/L	50	54.6	109	70-130	
1,1-Dichloroethene	ug/L	50	54.1	108	74-131	
1,2,4-Trichlorobenzene	ug/L	50	42.7	85	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	45.2	90	64-137	
1,2-Dibromoethane (EDB)	ug/L	50	46.7	93	70-130	
1,2-Dichlorobenzene	ug/L	50	48.1	96	70-130	
1,2-Dichloroethane	ug/L	50	53.0	106	70-137	
1,2-Dichloropropane	ug/L	50	51.9	104	80-121	
1,3-Dichlorobenzene	ug/L	50	50.0	100	70-130	
1,4-Dichlorobenzene	ug/L	50	47.9	96	70-130	
Benzene	ug/L	50	53.4	107	70-130	
Bromodichloromethane	ug/L	50	53.2	106	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

LABORATORY CONTROL SAMPLE: 2602347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	50	52.6	105	70-130	
Bromomethane	ug/L	50	47.2	94	21-147	
Carbon tetrachloride	ug/L	50	58.7	117	80-146	
Chlorobenzene	ug/L	50	51.6	103	70-130	
Chloroethane	ug/L	50	52.5	105	52-165	
Chloroform	ug/L	50	55.2	110	80-123	
Chloromethane	ug/L	50	54.0	108	51-122	
cis-1,2-Dichloroethene	ug/L	50	51.7	103	70-130	
cis-1,3-Dichloropropene	ug/L	50	51.7	103	70-130	
Dibromochloromethane	ug/L	50	52.9	106	70-130	
Dichlorodifluoromethane	ug/L	50	45.7	91	25-121	
Ethylbenzene	ug/L	50	51.6	103	80-120	
Isopropylbenzene (Cumene)	ug/L	50	48.5	97	70-130	
m&p-Xylene	ug/L	100	101	101	70-130	
Methyl-tert-butyl ether	ug/L	50	49.2	98	70-130	
Methylene Chloride	ug/L	50	55.5	111	70-130	
o-Xylene	ug/L	50	50.5	101	70-130	
Styrene	ug/L	50	58.9	118	70-130	
Tetrachloroethene	ug/L	50	50.9	102	70-130	
Toluene	ug/L	50	51.3	103	80-120	
trans-1,2-Dichloroethene	ug/L	50	51.9	104	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.4	95	70-130	
Trichloroethene	ug/L	50	53.8	108	70-130	
Trichlorofluoromethane	ug/L	50	56.6	113	65-160	
Vinyl chloride	ug/L	50	55.9	112	63-134	
Xylene (Total)	ug/L	150	152	101	70-130	
1,2-Dichlorobenzene-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2602430 2602431

Parameter	Units	40267035011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.30	50	50	62.0	56.8	124	114	70-134	9	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.38	50	50	49.5	49.1	99	98	61-135	1	20	
1,1,2-Trichloroethane	ug/L	<0.34	50	50	52.0	51.5	104	103	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.30	50	50	63.3	55.5	127	111	70-130	13	20	
1,1-Dichloroethene	ug/L	<0.58	50	50	58.0	54.7	116	109	71-130	6	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	44.2	43.8	88	88	68-131	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.4	50	50	44.4	43.7	89	87	51-141	2	20	
1,2-Dibromoethane (EDB)	ug/L	<0.31	50	50	49.5	48.7	99	97	70-130	2	20	
1,2-Dichlorobenzene	ug/L	<0.33	50	50	49.9	49.7	100	99	70-130	0	20	
1,2-Dichloroethane	ug/L	<0.29	50	50	55.8	52.4	112	105	70-137	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2602430 2602431

Parameter	Units	40267035011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloropropane	ug/L	<0.45	50	50	54.1	53.6	108	107	80-121	1	20	
1,3-Dichlorobenzene	ug/L	<0.35	50	50	52.5	51.6	105	103	70-130	2	20	
1,4-Dichlorobenzene	ug/L	<0.89	50	50	49.6	48.8	99	98	70-130	2	20	
Benzene	ug/L	<0.30	50	50	55.5	55.3	111	111	70-130	0	20	
Bromodichloromethane	ug/L	<0.42	50	50	56.5	54.0	113	108	70-130	4	20	
Bromoform	ug/L	<0.43	50	50	55.5	54.9	111	110	70-133	1	20	
Bromomethane	ug/L	<1.2	50	50	54.9	55.0	110	110	21-149	0	22	
Carbon tetrachloride	ug/L	<0.37	50	50	60.2	60.4	120	121	80-146	0	20	
Chlorobenzene	ug/L	<0.86	50	50	55.1	54.6	110	109	70-130	1	20	
Chloroethane	ug/L	<1.4	50	50	55.5	55.1	111	110	52-165	1	20	
Chloroform	ug/L	<0.50	50	50	61.7	56.2	123	112	80-123	9	20	
Chloromethane	ug/L	<1.6	50	50	54.6	54.2	109	108	42-125	1	20	
cis-1,2-Dichloroethene	ug/L	<0.47	50	50	59.8	53.0	120	106	70-130	12	20	
cis-1,3-Dichloropropene	ug/L	<0.24	50	50	54.4	52.1	109	104	70-130	4	20	
Dibromochloromethane	ug/L	<2.6	50	50	55.0	54.1	110	108	70-130	1	20	
Dichlorodifluoromethane	ug/L	<0.46	50	50	43.7	43.8	87	88	25-121	0	20	
Ethylbenzene	ug/L	<0.33	50	50	54.9	55.3	110	111	80-121	1	20	
Isopropylbenzene (Cumene)	ug/L	<1.0	50	50	51.0	50.9	102	102	70-130	0	20	
m&p-Xylene	ug/L	<0.70	100	100	107	107	107	107	70-130	1	20	
Methyl-tert-butyl ether	ug/L	<1.1	50	50	50.7	50.0	101	100	70-130	1	20	
Methylene Chloride	ug/L	<0.32	50	50	58.6	55.0	117	110	70-130	6	20	
o-Xylene	ug/L	<0.35	50	50	53.5	53.0	107	106	70-130	1	20	
Styrene	ug/L	<0.36	50	50	60.8	59.6	122	119	70-132	2	20	
Tetrachloroethene	ug/L	<0.41	50	50	53.5	53.4	107	107	70-130	0	20	
Toluene	ug/L	<0.29	50	50	53.2	53.5	106	107	80-120	1	20	
trans-1,2-Dichloroethene	ug/L	<0.53	50	50	54.6	53.4	109	107	70-130	2	20	
trans-1,3-Dichloropropene	ug/L	<0.27	50	50	49.0	49.1	98	98	70-130	0	20	
Trichloroethene	ug/L	<0.32	50	50	55.2	54.3	110	109	70-130	2	20	
Trichlorofluoromethane	ug/L	<0.42	50	50	57.4	57.1	115	114	65-160	0	20	
Vinyl chloride	ug/L	<0.17	50	50	58.9	57.2	118	114	60-137	3	20	
Xylene (Total)	ug/L	<1.0	150	150	160	160	107	107	70-130	0	20	
1,2-Dichlorobenzene-d4 (S)	%						100	95	70-130			
4-Bromofluorobenzene (S)	%						99	100	70-130			
Toluene-d8 (S)	%						101	103	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

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.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20.0158385.01 KLINKE CLEANERS
Pace Project No.: 40267060

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40267060001	**MW-2**	EPA 8260	452986		
40267060002	**MW-3**	EPA 8260	452986		
40267060003	**MW-4**	EPA 8260	452986		
40267060004	**PZ-4**	EPA 8260	452986		
40267060005	**TRIP BLANK**	EPA 8260	452986		

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

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

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here: 40267060

ALL SHADED AREAS are for LAB USE ONLY

Company: GZA GeoEnvironmental	Billing Information: AP@GZA.com
Address: 17975 N. Sarah Ln. Brookfield WI	
Report To: sheryl.stephenson@gza.com	Email To: AP@GZA.com
Copy To: paige.ehmke@gza.com	Site Collection Info/Address:
Customer Project Name/Number: 20.0158385.01 Klinke Cleaners *	State: WI County/City: / Time Zone Collected: [ ] PT [ ] MT [X] CT [ ] ET
Phone: 262-202-1716 Email: sheryl.stephenson@gza.com	Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Paige Ehmke	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature): PMehmke	Turnaround Date Required: NORMAL Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [X] No 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	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Analyses: VOCs	Analyses: TRIP BLANK	Lab Sample # / Comments
MW-2	GW	GRAB	8/21/23	1039	—			3	X		001
MW-3	GW	GRAB	8/21/23	1158	—			3	X		002
MW-4	GW	GRAB	8/21/23	1330	—			3	X		003
PZ4	GW	GRAB	8/21/23	1358	—			3	X		004
TRIP BLANK											005

Container Preservative Type **: 3

** 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 _____

Lab Project Manager:

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: _____			
Sample pH Acceptable	Y	N	NA
pH Strips: _____			
Sulfide Present	Y	N	NA
Lead Acetate Strips: _____			

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:
*Updated per Sheryl S-GZA. 8/22/23 CDH

Type of Ice Used: Wet Blue Dry None

Packing Material Used: (D)

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2908898

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) PMehmke GZA	Date/Time: 8/21/23 1602	Received by/Company: (Signature) GS Logistics	Date/Time: 8/21/23 1602
Relinquished by/Company: (Signature) GS Logistics KCS	Date/Time: 8/22/23 0925	Received by/Company: (Signature)	Date/Time: 8/22/23 0925
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template: (T)
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

Sample Preservation Receipt Form

Client Name: CoLA Geo Environmental Project # 402670660

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☐N/A Lab Std #ID of preservation (if pH adjusted). Initial when completed Date/ Time

Lab Lot# of pH paper

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	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN 1	GN 2							
001																												1						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

8/22/23 SC

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

8/22/23 SC

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

Page 1 of 2

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40267060

40267060

Client Name: GZA GeoEnvironmental

Courier: ☑ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other: _____

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: 0.0 /Corr: 0.0

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: 8/22/23 Initials: SG

Labeled By Initials: EA

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

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