Via E- Mail

April 24, 2026

Ms. Delonda Alexander
North Carolina Department of Environment Quality
Division of Waste Management, Superfund Section
Dry-Cleaning Solvent Cleanup Act Program
1646 Mail Service Center
Raleigh, NC 27699

Re: DSCA PFAS Pilot Study Supplemental Report
H&H Job No. DS0-PFAS

Dear Delonda:

Hart & Hickman, PC (H&H) is submitting this letter report to document supplemental information related to the recent pilot study of per and polyfluoroalkyl substances (PFAS) at dry-cleaning facilities performed on behalf of the North Carolina Department of Environmental Quality (NCDEQ) Dry-Cleaning Solvent Cleanup Act (DSCA) Program. More specifically, this letter report documents sampling procedures, quality assurance/quality control protocols, and laboratory analytical reports. Please refer to the separate DSCA PFAS Pilot Study Report for additional discussion of the study objectives, data evaluation, and conclusions.

1.0 Scope of Work

The scope of the pilot study sampling included collection of groundwater samples and dry-cleaning process samples at multiple sites as detailed below.

- Groundwater samples were collected from existing monitoring wells at 14 DSCA Program sites. At each site, samples were collected from an upgradient monitoring well to establish background conditions, and from the site monitoring well with the highest concentrations of dry-cleaning solvent constituents of concern.

- Samples referred to as "dry-cleaning process samples" in this report include samples of virgin solvent, used solvent, detergents, spotting agents, the facility's raw wet wash water source, post-wet wash water, and separator water in the facility mister pre- and post-carbon. Process samples were collected from five active dry-cleaning facilities. In addition, some samples were purchased directly from a dry-cleaning solvent distributor.

Table 1 provides a summary of the sites sampled with background information regarding dry-cleaning operations, types of solvent used, historical tetrachloroethylene (PCE) groundwater concentrations, and geologic region. Additional discussion of the rationale for sites selected for sampling is provided in the DSCA PFAS Pilot Study Report. **Figure 1** shows the site locations. **Table 2** provides a summary of the dry-cleaning process sample types.

2.0 Sampling Protocols

2.1 General PFAS Sampling Protocols

Samples were collected in general accordance with United States Environmental Protection Agency (EPA) Laboratory Services & Applied Science Division (LSASD) groundwater sampling protocols for PFAS, effective March 20, 2025. Because PFAS compounds are present in many commonly used materials, the PFAS Sampling Checklist, included in **Appendix A**, was followed throughout sampling activities to reduce the potential for cross-contamination of samples from outside sources. Two H&H staff were present for the duration of the groundwater sampling events and used an approach similar to the EPA "Clean Hands Dirty Hands" to further reduce the potential for cross-contamination during sampling. Additional details regarding specific methods for collection of groundwater and dry-cleaning process samples are described further in the sections below. Representative photographs of sampling activities are included in **Appendix B**.

2.2 Groundwater Sampling Methods

Between June 12 and July 2, 2025, groundwater samples were collected from an upgradient monitoring well and a source monitoring well at 14 DSCA Program sites. The wells sampled at each site are indicated on the site figures in **Appendix C.**

Prior to sampling at each well location, the depth to groundwater was measured using a decontaminated PFAS-free electronic water level meter. Well purging and sampling were performed using a peristaltic pump and high-density polyethylene (HDPE) tubing for all monitoring wells except MW-4S at site DC600093, MW-1 at site DC320014, and MW-1 and MW-3 at site DC490007. For these wells, a peristaltic pump could not be used due to the depth to groundwater, so bladder pumps with PFAS-free silicone bladders and HDPE tubing were used.

Monitoring wells were purged using low-flow sampling techniques until field parameters of temperature, pH, dissolved oxygen, specific conductivity, and oxidation reduction potential (ORP) stabilized and turbidity readings either stabilized or were less than 10 Nephelometric Turbidity Units (NTUs). H&H aimed to achieve turbidity readings below 10 NTUs when possible, since PFAS can sorb onto suspended particles and potentially bias sampling results. For most wells, a turbidity of less than 10 NTUs was reached. Wells where turbidity remained above 10 NTUs at the time of sampling are noted on the tables in this report for reference. However, based on review of the data, elevated turbidity does not appear to have significantly influenced the study conclusions (i.e., elevated turbidity is not a concern at the sites identified as having significant PFAS impacts). Groundwater field sampling forms containing field parameter measurements are included in **Appendix D**.

Following stabilization, groundwater samples were collected from sample tubing directly into dedicated laboratory-supplied sample containers and placed into iced coolers. Separate coolers were used for each site. The coolers were maintained by H&H under chain-of-custody protocol

and at a temperature of less than 6° Celsius until shipment to Eurofins Lancaster Laboratories Environment Testing, LLC (Eurofins), a certified laboratory. Groundwater samples were analyzed by EPA Method 1633A for the method-specified PFAS analyte list plus hexafluoropropylene oxide dimer acid (HFPO-DA, also known as GenX).

2.3 Dry-Cleaning Process Sampling Methods

Between June 12 and August 20, 2025, dry-cleaning process samples were collected from five active dry-cleaning facilities. The samples included virgin solvent, used solvent, detergents, spotting agents, the facility's raw water source, post-wet wash water, and separator water in the facility mister pre and post-carbon. The specific samples collected varied for each site based on availability and permissions granted by the dry-cleaning business operator. H&H also purchased raw PCE solvent as well as several spotting agents and detergents directly from a dry-cleaning solvent distributer, FabriClean Supply, which were sampled on September 23 and December 9, 2025.

Most samples collected at the dry-cleaning facilities were obtained from containers that had already been opened and used by the facility. As discussed further in the DSCA PFAS Pilot Study Report, resampling of some products from newly purchased containers, compared to containers previously opened by the facility, indicated lower concentrations, suggesting that some dry-cleaning facilities may have altered contents. Therefore, sample results for containers purchased directly from the manufacturer are considered the most reliable. However, the data from open containers remain useful, as they reflect the products and use practices currently employed by some dry-cleaning facilities. A summary of the dry-cleaning process sample types and notes about open versus unopened containers are provided in **Table 2**.

Where practical, process samples were collected from product containers or machine components directly into dedicated laboratory-supplied sample containers. When direct sampling from the source was not possible, a peristaltic pump and HDPE tubing or an extra laboratory-

supplied sample container were used to transfer the sample volume from the container into dedicated laboratory-supplied sample containers. Separate coolers were used for each site, and process samples were kept in separate coolers from groundwater samples. The coolers were maintained by H&H under chain-of-custody protocol and at a temperature of less than 6° Celsius until shipment to Eurofins. Per the laboratory's recommendation, process samples were analyzed by EPA Method 537 for the method-specified PFAS analyte list. Due to the nature of the samples (commercial products and wastes with potentially high concentrations of unconfirmed analytes), Eurofins conducted pre-extraction screening and diluted the samples before analysis to protect their equipment, which resulted in elevated practical quantitation limits (PQLs) for this data set.

2.4 QA/QC Samples

Quality assurance/quality control (QA/QC) samples were collected to assess the quality of the field sampling and analytical programs. The QA/QC samples included collection of a duplicate, field blank, and equipment rinse blank at each site. Blanks were collected using laboratory-provided PFAS-free water. Where groundwater sampling was performed, the duplicate sample was collected at the source monitoring well. A few duplicates were also collected from select process sample locations. The equipment rinse blank was collected by running the PFAS-free water through new sample tubing. At the DC320014 and DC600093 sites where a bladder pump was used, a second equipment rinse blank was collected by running PFAS-free water over a decontaminated bladder pump. The field blank was collected by pouring PFAS-free water into the sampling containers while on-site under representative field conditions. The duplicate, field blank, and equipment rinse blank sample containers were placed in an iced cooler which was maintained by H&H under chain-of-custody protocol and at a temperature of less than 6° Celsius until shipment to Eurofins. QA/QC samples were analyzed by EPA Method 1633A for the method-specified PFAS analyte list plus HFPO-DA (i.e., GenX).

A full suite of QA/QC samples was not collected for all sampling events where only dry-cleaning process samples were collected. Analyses of these samples required high laboratory dilutions, which reduces sensitivity to low-level contamination. In addition, no regulatory standards currently apply to these materials and therefore QA/QC measures for process samples were less extensive. Results for process samples should be interpreted accordingly, as discussed further in Section 3.2.

2.5 TOP Samples

Over the course of the study, additional samples were collected for potential analysis of PFAS precursors using total oxidizable precursor (TOP) assay methodology. In some cases, the laboratory was instructed to analyze the TOP samples concurrent with the primary samples. In other cases, the samples were placed on hold and a decision was made to analyze or not to analyze based on the prior sample analytical results. Analysis of QA/QC samples by TOP Assay was performed only for the 920025C site, and included a duplicate, an equipment blank, and a field blank.

3.0 Laboratory Analytical Results

Laboratory analytical reports are provided in **Appendix E**. The sections below provide a summary of the sample analytical data and discussion of the QA/QC data with regard to data usability.

3.1 Groundwater and Dry-cleaning Process Sample Laboratory Results

The following tables are included to summarize the results of the groundwater and dry-cleaning process sample analyses:

- **Table 2** – Summary of Dry-cleaning Process Samples with Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) Concentrations
- **Table 3** – PFOS and PFOA Concentrations in Groundwater Samples

- **Table 4** – PFAS Concentrations in Groundwater Samples
- **Table 5** – PFAS Concentrations in Dry-cleaning Process Samples
- **Table 6** – TOP Concentration Comparison for Groundwater Samples
- **Table 7** – TOP Concentration Comparison for Dry-cleaning Process Samples

Refer to the separate DSCA PFAS Pilot Study Report for discussion of sampling results and associated data evaluation.

3.2 QA/QC Sample Laboratory Results

The following tables are included to summarize the results of the QA/QC sample analyses:

- **Table 8** – PFAS Concentrations in Duplicate Samples
- **Table 9** – PFAS Concentrations in Quality Assurance/Quality Control Samples
- **Table 10** – Summary of Laboratory Case Narrative Flags

Sections 3.2.1 and 3.2.2 below provide details regarding QA/QC sample results and data usability for the standard PFAS analyses and the TOP analyses, respectively.

3.2.1 Standard PFAS QA/QC Analyses

As indicated on **Table 8**, comparison of analytical results for the parent and duplicate samples for the standard PFAS analyses indicates good analytical repeatability. NCDEQ typically considers a relative percent difference (RPD) below 30% to be acceptable. Calculated RPDs for the pilot study samples were below 30% with the exception of PFHxS for Site ID DC600093 with an RPD of 73%. PFHxS concentrations in the upgradient and source well for Site ID DC600093 were below the EPA Maximum Contaminant Level (MCL) of 10 nanograms per liter (ng/L) at 6.1 and 7.9 ng/L, respectively. However, the PFHxS concentration in the duplicate source well sample exceeded the EPA MCL at 17 ng/L. Potential QA/QC issues for PFHxS

concentrations in samples from Site ID DC600093 are flagged accordingly in the tables presented in this report and the DSCA PFAS Pilot Study Report.

As indicated on **Table 9**, the QA/QC sample results for the field blank and equipment rinse blank samples indicated no detections of PFAS above laboratory method detection limits (MDLs) for sites where groundwater sampling was performed. For Site ID 920025C, where sampling was limited to dry-cleaning process samples, a laboratory estimated concentration (i.e., J-flagged concentration above the MDL but below the PQL) of 1H,1H,2H,2H-perfluorodecane sulfonic acid (8:2 FTS) at 850 ng/L was detected in the equipment blank sample. 8:2 FTS was also detected at a similar concentration in the wet wash supply water sample collected at this site, but HDPE tubing was not used to collect the sample and therefore QA/QC issues are not expected for the result. Potential QA/QC issues for 8:2 FTS concentrations in samples from Site ID 920025C are flagged accordingly in the tables presented in this report and the DSCA PFAS Pilot Study Report.

The laboratory also analyzed appropriate internal QA/QC samples, including method blanks (MBs), laboratory control samples (LCS), matrix spike (MS)/matrix spike duplicate (MSD) samples, reagent/preparation blanks, calibration standards, internal standards, surrogate standards, and laboratory duplicates. Results for these samples are included in the laboratory reports in **Appendix E**. The laboratory reports include data flags related to these samples as well as other analytical issues where appropriate. These data flags are also included in the tables in this report, along with definitions for general case narrative notes in **Table 10**. For the groundwater sample analyses, the only reported data flags for detected constituents were: (1) estimated maximum possible concentration; and (2) transition mass ratio in the analytical batch was outside of the established ratio limits, but analyst judgment was used to positively identify the analyte. These data flags do not significantly impact the pilot study conclusions. Additional data flags were reported for some non-detect groundwater constituents, but are also not considered a significant concern in relation to the pilot study conclusions

Case narrative flags were reported more frequently for the dry-cleaning process samples. In most cases, these data flags indicate that the laboratory was able to determine a reasonable estimated concentration based on the available data. However, due to the nature of the samples, which primarily consisted of commercial products or heavily impacted waste materials, as well as the frequency of data flags and elevated detection limits, H&H recommends that laboratory results for the dry-cleaning process samples generally be considered estimated. This recommendation is also noted in the DSCA PFAS Pilot Study Report. No regulatory standards apply to these materials, and analytical precision is considered less critical for these samples for the purposes of the pilot study.

3.2.2 TOP QA/QC Analyses

The TOP Assay analysis is designed to identify and estimate concentrations of PFAS precursor compounds that are not fully captured by standard targeted PFAS analyses. The method involves chemical oxidation of the sample to convert oxidizable PFAS precursors into terminal perfluoroalkyl acids, with results determined by comparing PFAS concentrations measured before and after oxidation.

A subset of the groundwater and dry-cleaning process samples were submitted for TOP analyses. Field QA/QC samples were analyzed by TOP only at Site 920025C, where sampling was limited to dry-cleaning process sampling (i.e., no groundwater sampling). Comparison of analytical results for the parent and duplicate sample at this site indicates good analytical repeatability, with RPDs of less than 30%. However, analytical data for the equipment blank and field blank indicate potential QA/QC concerns for a few constituents as discussed below.

Perfluorodecanoic acid (PFDA) was detected at laboratory estimated concentrations (i.e., J-flagged) of 320 ng/L and 280 ng/L in the TOP equipment blank and field blank, respectively, from Site 920025C; however, PFDA was also detected in the associated method blank at 295 ng/L. Based on the method blank detection, the detections in the equipment and field blanks do not indicate a QA/QC concern associated with field sampling procedures.

The TOP equipment blank sample from Site 920025C indicated detections of perfluorononanoic acid (PFNA) at an estimated maximum possible concentration (i.e., I-flagged) of 2,300 ng/L and PFOA at a laboratory estimated concentration (i.e., J-flagged) of 270 ng/L. PFNA and PFOA were not detected in the laboratory method blank, the field blank, or the blank samples from Site 920025C that were analyzed via the standard EPA Method 537 analysis (i.e., not TOP). The equipment blank samples were collected from the HDPE tubing used for sampling. These data suggest that PFNA and/or PFOA precursors may have been present in association with the HDPE tubing used to collect samples from Site 920025C. However, there were no detections of PFNA nor PFOA for any sample collected from Site 920025C, and therefore the equipment blank detections do not pose a significant QA/QC concern associated with the field sampling equipment.

4.0 Closing

H&H appreciates the opportunity to work with you on this project. If you have any questions or require additional information, please do not hesitate to contact us at (919) 847-4241.

Sincerely,
Hart & Hickman, PC

Savannah Scott, PG
Project Geologist

Sam Martin, PG
Senior Project Geologist

Genna K. Olson, PG
Principal Geologist

Attachments:

Table 1 – Summary of Pilot Study Sites
Table 2 – Summary of Dry-cleaning Process Samples with PFOS and PFOA Concentrations
Table 3 – PFOS and PFOA Concentrations in Groundwater Samples
Table 4 – PFAS Concentrations in Groundwater Samples
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Table 8 – PFAS Concentrations in Duplicate Samples
Table 9 – PFAS Concentrations in Quality Assurance/Quality Control Samples
Table 10 – Summary of Laboratory Case Narrative Flags

Figure 1 – Site Location Map

Appendix A – PFAS Sampling Checklist
Appendix B – Photo Log
Appendix C – Groundwater Sampling Site Figures
Appendix D – Groundwater Field Sampling Forms
Appendix E – Laboratory Analytical Reports

Tables

Table 1
Summary of Pilot Study Sites
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Pilot Site ID	Site Name	DSCA Site ID	County	Type of Sampling	Years of Dry Cleaner Operation	Approximate Years of Dry-Cleaning	Solvent Used	Maximum Groundwater PCE Concentration	Geologic Region
1	$2.75 Cleaners (Klean Rite)	DC340005	Forsyth	Groundwater & Process	1960-Present	65	PCE	5.4 mg/L	Piedmont
2	Carriage House Cleaners	DC920051	Wake	Groundwater	1970-2024 (PCE) 2024-Present (petroleum)	55	PCE	5.8 mg/L	Piedmont
3	Deluxe Cleaners	DC330005	Edgecombe	Groundwater	1960s-1990s	30	Petroleum	N/A**	Coastal Plain
4	Everhart Cleaners	DC410009	Guilford	Groundwater	1964-1970 / 1975-1998	28	PCE	78 mg/L	Piedmont
5	Fabric Care Center	DC740014	Pitt	Groundwater	1969-1985	16	PCE (assumed)	1.3 mg/L	Coastal Plain
6	Ferree Cleaners	DC120001	Burke	Groundwater	1964-2003	39	PCE & Petroleum	240 mg/L	Mountain
7	Hollywood Cleaners	DC320014	Durham	Groundwater	1987-2009	22	PCE	0.14 mg/L	Triassic Basin
8	Iredell Laundry	DC490007	Iredell	Groundwater	1950s-1960s	20	PCE (assumed)	1.2 mg/L	Piedmont
9	NS Farrington	DC340039	Forsyth	Groundwater	1985-2017*	32*	PCE & Petroleum*	4.3 mg/L	Piedmont
10	One Hour Martinizing	DC360006	Gaston	Groundwater & Process	1966-Present (PCE) 2012-Present (petroleum)	59	PCE & Petroleum	2.0 mg/L	Piedmont
11	Reaves Spic & Span	DC920056	Wake	Groundwater	Unknown-late 1950s	10	PCE (assumed)	0.37 mg/L	Piedmont
12	Wash Zone	DC600093	Mecklenburg	Groundwater	1970s-2000s	40	PCE (assumed)	0.37 mg/L	Piedmont
13	White Star Laundry	DC320038	Durham	Groundwater	1970s-1980s	10	PCE (assumed)	0.0967 mg/L	Triassic Basin
14	Youngs Cleaners	DC290002	Davidson	Groundwater & Process	1960-2000 (PCE) 2000-Present (petroleum)	65	PCE & Petroleum	36 mg/L	Piedmont
15	A Cleaner World #203	DC320021	Durham	Process	1995-Present	10	PCE	0.020 mg/L	Triassic Basin
16	A Cleaner World #206	920025C	Wake	Process	1997-Present	9	PCE	N/A**	Piedmont

Notes:
PFAS = per- and polyfluoroalkyl substances; PCE = tetrachloroethylene; N/A = not applicable
mg/L = milligrams per liter
* = Site 9 was a dry-cleaning solvent distribution facility. No active dry-cleaning was performed on-site.
** = Site 3 is a petroleum release site with no detectable PCE. No groundwater sampling has been performed at Site 16.

Table 2
Summary of Dry-Cleaning Process Samples with PFOS and PFOA Concentrations
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample ID	Concentration		Units	Sample Description
	PFOS	PFOA		
Virgin dry-cleaning solvent samples				
DC290002-VS	<1,000	<1,000	ng/L	Virgin petroleum solvent - open container
DC-VS	<970	<970	ng/L	Virgin PCE solvent - new container
Used dry-cleaning solvent samples				
DC340005-SS	1,500	25,000	ng/L	Used PCE solvent (from waste drum)
DC320021-SS	11,000	4,900	ng/L	Used PCE solvent (from waste drum)
Pre and post- wet wash laundry water samples				
DC340005-WW-PRE	<960	<960	ng/L	Wet wash supply water (from bathroom sink)
DC340005-WW-POST	<980	<980	ng/L	Wet wash spent water (from discharge pipe)
DC340005-WW-BASIN	<950	<950	ng/L	Wet wash spent water (from discharge basin)
DC320021-WW-PRE	<970	<970	ng/L	Wet wash supply water
DC320021-WW-Out	<950	<950	ng/L	Wet wash spent water
920025C-WW-PRE	<1,000	<1,000	ng/L	Wet wash supply water
920025C-WW-POST	<930	<930	ng/L	Wet wash spent water
DC360006-WW-PRE	<990	<990	ng/L	Wet wash supply water (from bathroom sink)
DC360006-WW-POST	<950	<950	ng/L	Wet wash spent water (from discharge basin)
Facility mister samples pre and post-carbon				
DC340005-MIST-PRE	<940	570 J	ng/L	Facility mister water (pre-carbon filter)
DC340005-MIST-POST	<980	<980	ng/L	Facility mister water (post-carbon filter)
DC320021-Mist-PRE	<930	770 J	ng/L	Facility mister water (pre-carbon filter)
DC320021-Mist-POST	<990	660 J	ng/L	Facility mister water (post-carbon filter)
920025C-Mist-Pre	<970	<970	ng/L	Facility mister water (pre-carbon filter)
920025C-Mist-Post	<990	<990	ng/L	Facility mister water (post-carbon filter)
DC360006-MIST-PRE	<970	<970	ng/L	Facility mister water (pre-carbon filter)
Detergent and additive samples				
DC340005-DET	<950 cn[6]	17,000 cn[6]	ng/L	Liquid detergent (Fabricol®) - open container
DC-DET-1	<9700 cn[16]	<9700 cn[16]	ng/L	Liquid detergent (Fabricol®) - new container from distributor
DC340005-DET-2	<940	3,100	ng/L	Liquid detergent (Triumph®) - open container
DC340005-DET-3	<970	<970	ng/L	Liquid detergent (Palmolive®)/water mixture - open container
DC320021-DET-1	<960 cn[6]	<960 cn[6]	ng/L	Liquid detergent (Elegant Care®) - open container
DC320021-DET-2	<980 cn[6]	<980 cn[6]	ng/L	Liquid detergent (Casual Care®) - open container
920025C-DET-1	<990 cn[4]	<990 cn[4]	ng/L	Liquid detergent (Lanadol Aktiv®) - open container
920025C-DET-2	<950	<950	ng/L	Liquid detergent (Lanadol Apret®) - open container
DC360006-DET	<0.57	<0.57	ng/g	Powdered detergent (Oxysol®) - open container
DC290002-DET	<0.59	2.4	ng/g	Powdered detergent (Citrazyme®) - open container
920025C-ADD-1	<950	<950	ng/L	Additive (Sanitone Encore®) - open container
920025C-ADD-2	<980 cn[11]	<980 cn[11]	ng/L	Additive (Sanitone Enhance®) - open container
Spotting agent samples				
DC340005-SPOT	<970	340 J	ng/L	Spotting agent (Picrin®) - unopened container at dry cleaner
DC340005-SPOT-2	<990	<990	ng/L	Spotting agent (StreetEx®) - open container
DC-SPOT-4	<9600	<9600	ng/L	Spotting agent (StreetEx®) - open container
920025C-SPOT	<960	<960	ng/L	Spotting agent (Targo® EF) - open container
DC290002-SPOT	<930	1,800,000	ng/L	Spotting agent (Neutra®) - open container
DC-SPOT-3	<9500 cn[16]	<9500 cn[16]	ng/L	Spotting agent (Neutra®) - open container
DC-SPOT-1	<980	<980	ng/L	Spotting agent (TarGo® Dry) - new container from distributor
DC-SPOT-2	<950 cn	<950 cn	ng/L	Spotting agent (TarGo® EF) - new container from distributor

Notes:
Samples analyzed using the Environmental Protection Agency (EPA) Method 537.
PFAS = per- and polyfluoroalkyl substances; PFOS = perfluorooctanesulfonic acid; PFOA = perfluorooctanoic acid; PCE = tetrachloroethylene
< = less than practical quantitation limit (PQL); ng/L = nanograms per liter; ng/g = nanograms per gram
J = estimated result less than the PQL but greater than or equal to the method detection limit
cn = refer to Table 10 for case narrative flag descriptions
Note laboratory analyzed all samples with dilutions since they represent process or product samples.

Table 3
PFOS and PFOA Concentrations in Groundwater Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Site Name	DSCA Site ID	PFOS		PFOA	
		Upgradient	Source	Upgradient	Source
$2.75 Cleaners (Klean Rite)	DC340005	**14 I,cn[7],T**	**21**	**6.5 T**	**14**
Carriage House Cleaners	DC920051	<1.7	**6.3 I,cn[7]**	1.9	**110**
Deluxe Cleaners	DC330005	**110 I,cn[7]**	**550**	**320**	**270**
Everhart Cleaners	DC410009	**16**	**140**	**13**	**73**
Fabric Care Center	DC740014	**76**	**24 I,cn[7]**	**15**	**45**
Ferree Cleaners	DC120001	2.8	**47 I,cn[7]**	<1.0 cn[12]	**86**
Hollywood Cleaners	DC320014	**10**	**8.2**	**15**	**14**
Iredell Laundry	DC490007	<1.5 T	<1.5 T	1.7 T	<1.5 T
NS Farrington	DC340039	<1.2 cn[12]	2.2	2.3	2.5
One Hour Martinizing	DC360006	<1.6	<1.7	2.5	**33**
Reaves Spic & Span	DC920056	<1.7	<1.8	**4.4**	**4.1**
Wash Zone	DC600093	3.0 I,cn[7]	**16 T**	**7.3**	**31 T**
White Star Laundry	DC320038	**12**	**87**	**7.8**	**150**
Youngs Cleaners	DC290002	**32**	**5.8 T**	**34**	**6.5 T**

Notes:
Samples analyzed using the Environmental Protection Agency (EPA) Method 1633A.
Bold values indicate concentrations exceed the Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) dated April 2024 and the North Carolina (NC) 2L Groundwater Standard (2L Standard) dated November 2025 of 4 nanograms per liter (ng/L). Per the Fiscal and Regulatory Impact Analysis Amendment to 15A NCAC 02L .0202 dated August 2024, the applicable 2L Standard is the EPA Practical Quantitiation Limit (PQL) of 4 ng/L defined based on EPA national laboratory validation results.
Shaded values indicate source well concentrations exceed upgradient (i.e., background) well concentrations by more than an order of magnitude.
All data are reported in ng/L.
T = sample turbidity greater than 10 nephelometric turbidity units (Hart & Hickman, PC data qualifier)
PFAS = per- and polyfluoroalkyl substances; PFOS = perfluorooctanesulfonic acid; PFOA = perfluorooctanoic acid
< = less than PQL
cn = refer to Table 10 for case narrative flag descriptions; I = value is estimated maximum possible concentration (EMPC)

Table 4
PFAS Concentrations in Groundwater Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Site Name	EPA MCL[1]	NC 2L Standard[2]	$2.75 Cleaners (Klean Rite)		Carriage House Cleaners		Deluxe Cleaners		Everhart Cleaners		Fabric Care Center		Ferree Cleaners	
DSCA Site ID			DC340005		DC920051		DC330005		DC410009		DC740014		DC120001	
Sample ID			DC340005-MW-1[T]	DC340005-MW-2	DC920051-MW-1S	DC920051-MW-6	DC330005-MW-6	DC330005-MW-1	DC410009-MW-15S	DC410009-MW-2RS	DC740014-MW-4	DC740014-MW-2	DC120001-MW-10	DC120001-MW-7
Date			6/12/2025	6/12/2025	6/24/2025	6/24/2025	6/23/2025	6/23/2025	6/16/2025	6/16/2025	6/26/2025	6/26/2025	6/26/2025	6/26/2025
Sample Description			Upgradient	Source	Upgradient	Source	Upgradient	Source	Upgradient	Source	Upgradient	Source	Upgradient	Source
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4 *-,cn[15]	<1.5 *-,cn[15]
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	NS	<3.1	<3.0	<3.5	<3.4	<3.5	<3.5	<3.6	<3.5	<3.4	<3.2	<2.9	<3.0
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NS	<3.1	<3.0	<3.5	<3.4	<3.5	<3.5	<3.6	<3.5	<3.4	<3.2	<2.9	<3.0
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NS	<3.1	<3.0	<3.5	<3.4	5.1	<3.5	<3.6	<3.5	<3.4	<3.2	<2.9	<3.0
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10	10	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	0.48 J	<1.5
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NS	<7.8	<7.6	<8.6	<8.5	<8.8	<8.7	<8.9	<8.8	<8.6	<8.0	<7.2	<7.5
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	9.9	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NS	<7.8	<7.6	<8.6	<8.5	<8.8	<8.7	<8.9	<8.8	<8.6	<8.0	<7.2	<7.5
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	13	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluorobutanesulfonic acid (PFBS)	NS	NS	6.2	13	13	44	29	10	2.8	6.1	3.2	1.7	<1.4	6.4
Perfluorobutanoic acid (PFBA)	NS	NS	1.6 J	5.6	3.6	35	44	38	3.9	16	<3.4	2.5 J	1.2 J	9.8
Perfluorodecanesulfonic acid (PFDS)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluorodecanoic acid (PFDA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	8.0	<1.8	4.1	<1.7	<1.6	<1.4	<1.5
Perfluorododecanesulfonic acid (PFDoS)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7 *1,cn[13]	<1.6 *1,cn[13]	<1.4	<1.5
Perfluorododecanoic acid (PFDoA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluoroheptanesulfonic acid (PFHpS)	NS	NS	0.50 J	0.67 J	<1.7	1.6 J	7.2	6.1	<1.8	3.2	<1.2 cn[12]	2.0	<1.4	10
Perfluoroheptanoic acid (PFHpA)	NS	NS	1.8	5.3	5.4	89	82	78	5.6	19	5.8	13	<1.4	9.1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NS	<7.8	<7.6	<8.6	<8.5	<8.8	<8.7	<8.9	<8.8	<8.6	<8.0	<7.2	<7.5
Perfluorohexanesulfonic acid (PFHxS)	10	NS	6.4	4.3	4.5	**17**	**170**	**25**	5.5	**11**	**40**	5.9	<1.4	**14**
Perfluorohexanoic acid (PFHxA)	NS	NS	2.8	7.0	6.2	82	120	62	5.5	28	10	10	<0.52 cn[12]	24
Perfluorononanesulfonic acid (PFNS)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluorononanoic acid (PFNA)	10	NS	0.57 J	<1.5	<1.7	1.5 J	4.1	**26**	<1.6 cn[12]	8.4	<0.51 cn[12]	5.1	<0.43 cn[12]	2.8
Perfluorooctanesulfonamide (PFOSA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	8.6	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluorooctanesulfonic acid (PFOS)	4	4 (0.7)	**14 I,cn[7]**	**21**	<1.7	**6.3 I,cn[7]**	**110 I,cn[7]**	**550**	**16**	**140**	**76**	**24 I,cn[7]**	2.8	**47 I,cn[7]**
Perfluorooctanoic acid (PFOA)	4	4 (0.001)	**6.5**	**14**	1.9	**110**	**320**	**270**	**13**	**73**	**15**	**45**	<1.0 cn[12]	**86**
Perfluoropentanesulfonic acid (PFPeS)	NS	NS	1.4 J	1.5	<1.7	2.0	30	6.0	<1.8	2.6	1.5 J	1.2 J	<1.4	3.7
Perfluoropentanoic acid (PFPeA)	NS	NS	1.7	9.9	5.8	96	76	47	4.1	26	9.1	11	<1.4	44
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NS	<7.8 *-,cn[1]	<7.6 *-,cn[1]	<8.6	<8.5	<8.8	<8.7	<8.9	<8.8	<8.6	<8.0	<7.2	<7.5
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NS	<3.1	<3.0	<3.5	<3.4	<3.5	<3.5	<3.6	<3.5	<3.4	<3.2	<2.9	<3.0
Perfluorotetradecanoic acid (PFTeDA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluorotridecanoic acid (PFTrDA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Perfluoroundecanoic acid (PFUnA)	NS	NS	<1.6	<1.5	<1.7	<1.7	<1.8	<1.7	<1.8	<1.8	<1.7	<1.6	<1.4	<1.5
Total PFAS			43	82	40	480	1000	1160	56	340	161	121	4.5	257

Notes:
1) Value shown is Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) dated April 2024.
2) Value shown is North Carolina (NC) 2L Groundwater Standard (2L Standard) dated November 2025. For PFOS and PFOA, per the Fiscal and Regulatory Impact Analysis Amendment to 15A NCAC 02L .0202 dated August 2024, the applicable 2L Standard is the EPA Practical Quantitation Limit (PQL) of 4 nanograms per liter (ng/L) defined based on EPA national laboratory validation results.
All samples analyzed using EPA Method 1633A and data are reported in ng/L.
Bold values indicate concentrations exceed the MCL.
Underline values indicate concentrations exceed the NC 2L Standard.
Shaded values indicate source well concentrations exceed upgradient (i.e., background) well concentrations by more than an order of magnitude. Note that concentrations in the source well are compared to the PQL when the compound is not detected in the upgradient well.
T = sample turbidity greater than 10 nephelometric turbidity units (Hart & Hickman, PC data qualifier)
R = relative percent difference (RPD) between primary and duplicate sample exceeds 30% (Hart & Hickman, PC data qualifier)
NS = not specified; < = less than PQL
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the method detection limit (MDL)
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside control limits biased low
*1 = LCS/LCSD RPD exceeds control limits

Table 4
PFAS Concentrations in Groundwater Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Site Name	EPA MCL[1]	NC 2L Standard[2]	Hollywood Cleaners		Iredell Laundry		NS Farrington		One Hour Martinizing		Reaves Spic & Span		Wash Zone Coin Laundry	
DSCA Site ID			DC320014		DC490007		DC340039		DC360006		DC920056		DC600093	
Sample ID			DC320014-MW-1	DC320014-MW-10	DC490007-MW-3[T]	DC490007-MW-1[T]	DC340039-MW-1	DC340039-MW-2	DC360006-MW-8	DC360006-MW-2S	DC920056-MW-3	DC920056-MW-1	DC600093-MW-1	DC600093-MW-4S[T]
Date			6/25/2025	6/25/2025	6/24/2025	6/24/2025	7/2/2025	7/2/2025	6/18/2025	6/18/2025	6/24/2025	6/24/2025	6/30/2025	6/30/2025
Sample Description			Upgradient	Source	Upgradient	Source	Upgradient	Source	Upgradient	Source	Upgradient	Source	Upgradient	Source
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	NS	NS	<1.5 *-,cn[15]	<1.8 *-,cn[15]	<1.5	<1.5	<1.7	<1.7	<1.6 *-,cn[15]	<1.7 *-,cn[15]	<1.7	<1.8	<2.0	<1.7
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	NS	<3.0	<3.6	<3.0	<3.1	<3.3	<3.3	<3.1	<3.3	<3.3	<3.5	<3.9	<3.4
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NS	<3.0	<3.6	<3.0	<3.1	<3.3	<3.3	<3.1	<3.3	<3.3	<3.5	<3.9	<3.4
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NS	<3.0	<3.6	<3.0	<3.1	<3.3	<3.3	<3.1	<3.3	<3.3	<3.5	<3.9	<3.4
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10	10	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NS	<7.6	<9.0	<7.6	<7.7	<8.3	<8.3	<7.8	<8.3	<8.4	<8.8	<9.8	<8.4
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NS	<7.6	<9.0	<7.6	<7.7	<8.3	<8.3	<7.8	<8.3	<8.4	<8.8	<9.8	<8.4
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluorobutanesulfonic acid (PFBS)	NS	NS	15	6.3	3.1	0.96 J	1.2 J	1.2 J	<1.6	280	22	5.0	5.9	9.5
Perfluorobutanoic acid (PFBA)	NS	NS	9.1	4.5	3.2	1.0 J	1.6 J	1.8 J	3.3	140	6.2	3.2 J	3.4 J	7.4
Perfluorodecanesulfonic acid (PFDS)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluorodecanoic acid (PFDA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluorododecanesulfonic acid (PFDoS)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7 *1	<1.7 *1,cn[13]	<1.6	<1.7	<1.7	<1.8	<2.0 *1,cn[13]	<1.7 *1,cn[13]
Perfluorododecanoic acid (PFDoA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluoroheptanesulfonic acid (PFHpS)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluoroheptanoic acid (PFHpA)	NS	NS	8.6	6.0	1.4 J	<1.5	0.90 J	1.1 J	5.5	83	1.7	3.0	2.5	9.6
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NS	<7.6	<9.0	<7.6	<7.7	<8.3	<8.3	<7.8	<8.3	<8.4	<8.8	<9.8	<8.4
Perfluorohexanesulfonic acid (PFHxS)	10	NS	3.2	1.8	3.3	1.6	1.7	1.9	3.7	9.1	7.3	9.8	6.1**	7.9 R
Perfluorohexanoic acid (PFHxA)	NS	NS	15	6.5	5.3	1.7	2.2	1.9	3.4	390	3.3	4.4	9.6	18
Perfluorononanesulfonic acid (PFNS)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluorononanoic acid (PFNA)	10	NS	3.6	2.2	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	0.98 J
Perfluorooctanesulfonamide (PFOSA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluorooctanesulfonic acid (PFOS)	4	4 (0.7)	**10**	**8.2**	<1.5	<1.5	<1.2 cn[12]	2.2	<1.6	<1.7	<1.7	<1.8	3.0 I,cn[7]	**16**
Perfluorooctanoic acid (PFOA)	4	4 (0.001)	**15**	**14**	1.7	<1.5	2.3	2.5	2.5	**33**	**4.4**	**4.1**	**7.3**	**31**
Perfluoropentanesulfonic acid (PFPeS)	NS	NS	0.81 J	<1.8	1.4 J	<1.5	<1.7	<1.7	<1.6	2.9	5.6	<1.8	1.2 J	<1.7
Perfluoropentanoic acid (PFPeA)	NS	NS	19	6.3	5.5	2.1	1.9	1.6 J	3.4	710	3.0	4.0	11	21
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NS	<7.6	<9.0	<7.6	<7.7	<8.3	<8.3	<7.8	<8.3	<8.4	<8.8	<9.8	<8.4
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NS	<3.0	<3.6	<3.0	<3.1	<3.3	<3.3	<3.1	<3.3	<3.3	<3.5	<3.9	<3.4
Perfluorotetradecanoic acid (PFTeDA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluorotridecanoic acid (PFTrDA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Perfluoroundecanoic acid (PFUnA)	NS	NS	<1.5	<1.8	<1.5	<1.5	<1.7	<1.7	<1.6	<1.7	<1.7	<1.8	<2.0	<1.7
Total PFAS			99	56	24.9	7.4	11.8	14.2	21.8	1650	54	33.5	50	121

Notes:
1) Value shown is Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) dated April 2024.
2) Value shown is North Carolina (NC) 2L Groundwater Standard (2L Standard) dated November 2025. For PFOS and PFOA, per the Fiscal and Regulatory Impact Analysis Amendment to 15A NCAC 02L .0202 dated August 2024, the applicable 2L Standard is the EPA Practical Quantitation Limit (PQL) of 4 nanograms per liter (ng/L) defined based on EPA national laboratory validation results.
All samples analyzed using EPA Method 1633A and data are reported in ng/L.
Bold values indicate concentrations exceed the MCL.
Underline values indicate concentrations exceed the NC 2L Standard.
Shaded values indicate source well concentrations exceed upgradient (i.e., background) well concentrations by more than an order of magnitude. Note that concentrations in the source well are compared to the PQL when the compound is not detected in the upgradient well.
T = sample turbidity greater than 10 nephelometric turbidity units (Hart & Hickman, PC data qualifier)
R = relative percent difference (RPD) between primary and duplicate sample exceeds 30% (Hart & Hickman, PC data qualifier)
NS = not specified; < = less than PQL
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the method detection limit (MDL)
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside control limits biased low
*1 = LCS/LCSD RPD exceeds control limits

Table 4
PFAS Concentrations in Groundwater Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Site Name	EPA MCL[1]	NC 2L Standard[2]	White Star Laundry		Young's Cleaners	
DSCA Site ID			DC320038		DC290002	
Sample ID			DC320038-MW-8	DC320038-MW-4	DC290002-MW-9	DC290002-MW-3[T]
Date			6/19/2025	6/19/2025	6/16/2025	6/16/2025
Sample Description			Upgradient	Source	Upgradient	Source
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	NS	NS	<1.7	<1.7	<1.6	<1.6
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	NS	NS	<1.7	<1.7	<1.6	<1.6
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NS	<1.7	<1.7	<1.6	<1.6
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	NS	<3.4	<3.3	<3.2	<3.1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NS	<3.4	<3.3	<3.2	<3.1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NS	<3.4	<3.3	<3.2	<3.1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10	10	<1.7	<1.7	<1.6	<1.6
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NS	<1.7	<1.7	<1.6	<1.6
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NS	<8.6	<8.3	<8.1	<7.8
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	NS	<1.7	<1.7	<1.6	<1.6
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NS	<1.7	<1.7	<1.6	<1.6
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NS	<8.6	<8.3	<8.1	<7.8
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluorobutanesulfonic acid (PFBS)	NS	NS	6.5	26	19	1.2 J
Perfluorobutanoic acid (PFBA)	NS	NS	17	140	8.8	1.6 J
Perfluorodecanesulfonic acid (PFDS)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluorodecanoic acid (PFDA)	NS	NS	<1.7	2.9	0.50 J	<1.6
Perfluorododecanesulfonic acid (PFDoS)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluorododecanoic acid (PFDoA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluoroheptanesulfonic acid (PFHpS)	NS	NS	<1.7	2.1	0.72 J	<1.6
Perfluoroheptanoic acid (PFHpA)	NS	NS	4.3	61	9.4	1.5 J
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NS	<8.6	<8.3	<8.1	<7.8
Perfluorohexanesulfonic acid (PFHxS)	10	NS	1.5 J	9.7	5.9	1.9
Perfluorohexanoic acid (PFHxA)	NS	NS	29	93	11	3.1
Perfluorononanesulfonic acid (PFNS)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluorononanoic acid (PFNA)	10	NS	1.1 J	**21**	3.2	0.48 J
Perfluorooctanesulfonamide (PFOSA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluorooctanesulfonic acid (PFOS)	4	4 (0.7)	**12**	**87**	**32**	**5.8**
Perfluorooctanoic acid (PFOA)	4	4 (0.001)	**7.8**	**150**	**34**	**6.5**
Perfluoropentanesulfonic acid (PFPeS)	NS	NS	<1.7	3.2	0.88 J	0.57 J
Perfluoropentanoic acid (PFPeA)	NS	NS	26	100	13	2.9
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NS	<8.6 *-,cn[1]	<8.3 *-,cn[1]	<8.1 *-	<7.8 *-
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NS	<3.4	<3.3	<3.2	<3.1
Perfluorotetradecanoic acid (PFTeDA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluorotridecanoic acid (PFTrDA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Perfluoroundecanoic acid (PFUnA)	NS	NS	<1.7	<1.7	<1.6	<1.6
Total PFAS			105	700	138	25.6

Notes:
1) Value shown is Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) dated April 2024.
2) Value shown is North Carolina (NC) 2L Groundwater Standard (2L Standard) dated November 2025.
For PFOS and PFOA, per the Fiscal and Regulatory Impact Analysis Amendment to 15A NCAC 02L .0202 dated August 2024, the applicable 2L Standard is the EPA Practical Quantitation Limit (PQL) of 4 nanograms per liter (ng/L) defined based on EPA national laboratory validation results.
All samples analyzed using EPA Method 1633A and data are reported in ng/L.
Bold values indicate concentrations exceed the MCL.
Underline values indicate concentrations exceed the NC 2L Standard.
Shaded values indicate source well concentrations exceed upgradient (i.e., background) well concentrations by more than an order of magnitude. Note that concentrations in the source well are compared to the PQL when the compound is not detected in the upgradient well.
T = sample turbidity greater than 10 nephelometric turbidity units (Hart & Hickman, PC data qualifier)
R = relative percent difference (RPD) between primary and duplicate sample exceeds 30% (Hart & Hickman, PC data qualifier)
NS = not specified; < = less than PQL
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the method detection limit (MDL)
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside control limits biased low
*1 = LCS/LCSD RPD exceeds control limits

Table 5
PFAS Concentrations in Dry-cleaning Process Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample Type	Virgin dry-cleaning solvent samples		Used dry-cleaning solvent samples		Pre and post- wet wash laundry water samples								
Sample ID	DC290002-VS*	DC-VS	DC340005-SS	DC320021 - SS	DC340005-WW-PRE	DC340005-WW-POST	DC340005-WW-BASIN	DC320021 - WW - PRE	DC320021-WW-Out	920025C-WW-Pre	920025C-WW-Post	DC360006-WW-PRE	DC360006-WW-POST
Date	6/16/2025	9/23/2025	6/12/2025	7/3/2025	6/12/2025	6/12/2025	6/12/2025	7/3/2025	7/8/2025	8/6/2025	8/20/2025	6/24/2025	6/24/2025
Sample Description	Virgin petroleum solvent - open container	Virgin PCE solvent - new container from distributor	Used PCE solvent (from waste drum)	Used PCE solvent (from waste drum)	Wet wash supply water (from bathroom sink)	Wet wash spent water (from discharge pipe)	Wet wash spent water (from discharge basin)	Wet wash supply water	Wet wash spent water	Wet wash supply water	Wet wash spent water	Wet wash supply water (from bathroom sink)	Wet wash spent water (from discharge basin)
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1500	<1500	6,100	25,000	<1400	<1500	<1400	<1500	<1400	960 J	<1400	670 J	<1400
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2500	<2400	<2500	<2500	<2400	<2500	<2400	<2400	<2400	<2500	<2300	3,800	<2400
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1500	<1500	<1500	<1500	<1400	<1500	<1400	<1500	<1400	<1500	<1400	<1500	<1400
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2500	<2400	<2500	<2500	<2400	<2500	<2400	<2400	<2400	<2500	<2300	<2500	<2400
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<1500	<1500	23,000	82,000	<1400	<1500	<1400	<1500	<1400	<1500	<1400	<1500	<1400
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1500	<1500	370 J,^2	350 J	<1400	<1500	<1400	<1500	<1400	<1500	<1400	<1500	<1400
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1500	<1500	<1500	<1500	<1400	<1500	<1400	<1500	<1400	<1500	<1400	<1500	<1400
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<1500	<1500	12,000	57,000	<1400	<1500	<1400	<1500	<1400	<1500	<1400	<1500	<1400
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorobutanesulfonic acid (PFBS)	<1000	<970	1,800	440 J	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorobutanoic acid (PFBA)	<2500	<2400	16,000	2,000 J	<2400	<2500	<2400	<2400	<2400	<2500	<2300	<2500	<2400
Perfluorodecanesulfonic acid (PFDS)	<1000	<970	<980	450 J	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorodecanoic acid (PFDA)	<1000	<970	5,100	2,000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorododecanesulfonic acid (PFDoS)	<1500	<1500	<1500	<1500	<1400	<1500	<1400	<1500	<1400	<1500	<1400	<1500	<1400
Perfluorododecanoic acid (PFDoA)	<1000	<970	2,100	970 J	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluoroheptanesulfonic acid (PFHpS)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluoroheptanoic acid (PFHpA)	<1000	<970	3,100	550 J	<960	<980	<950	<970	<950	<1000	<930	<990	<950
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990 cn[5]	<950 cn[5]
Perfluorohexanesulfonic acid (PFHxS)	<1000	<970	<980	980 J	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorohexanoic acid (PFHxA)	<1000	<970	57,000	4,700	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorononanesulfonic acid (PFNS)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorononanoic acid (PFNA)	<1000	<970	1,000 I	470 J	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorooctanesulfonamide (PFOSA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorooctanesulfonic acid (PFOS)	<1000	<970	1,500	11,000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorooctanoic acid (PFOA)	<1000	<970	25,000	4,900	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluoropentanesulfonic acid (PFPeS)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluoropentanoic acid (PFPeA)	<1000	<970	6,700	500 J	<960	<980	<950	<970	<950	<1000	<930	<990	<950
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<1000	<970	<980	<1000	<960 cn[5]	<980 cn[5]	<950	<970	<950	<1000	<930	<990	<950
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorotetradecanoic acid (PFTeDA)	<1000	<970	710 J,I	370 J	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluorotridecanoic acid (PFTrDA)	<1000	<970	<980	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Perfluoroundecanoic acid (PFUnA)	<1000	<970	370 J	<1000	<960	<980	<950	<970	<950	<1000	<930	<990	<950
Total PFAS	ND	ND	162,000	194,000	ND	ND	ND	ND	ND	960	ND	4,500	ND

Notes:
All samples analyzed using Environmental Protection Agency (EPA) Method 537
All data are reported in nanograms per liter (ng/L), with the exception of powdered detergent samples which are reported in nanograms per gram (ng/g).
Note laboratory analyzed all samples with dilutions since they represent process or product samples.
< = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
EB = compound detected in equipment blank (850 ng/L) (Hart & Hickman, PC data qualifier)
B = compound detected in lab blank and sample
^2 = calibration blank is outside acceptable limits
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the MDL

Table 5
PFAS Concentrations in Dry-cleaning Process Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample Type	Facility mister samples pre and post-carbon							Detergent and additive samples						
Sample ID	DC340005-MIST-PRE	DC340005-MIST-POST	DC320021 - Mist - PRE	DC320021 - Mist - POST	920025C-Mist-Pre	920025C-Mist-Post	DC360006-MIST-PRE	DC340005-DET*	DC-DET-1	DC340005-DET-2*	DC340005-DET-3*	DC320021 - DET - 1	DC320021 - DET - 2	920025C-DET-1*
Date	6/12/2025	6/12/2025	7/3/2025	7/3/2025	8/6/2025	8/6/2025	6/24/2025	6/12/2025	12/9/2025	6/12/2025	6/12/2025	7/3/2025	7/3/2025	8/6/2025
Sample Description	Facility mister water (pre-carbon filter)	Facility mister water (post-carbon filter)	Facility mister water (pre-carbon filter)	Facility mister water (post-carbon filter)	Facility mister water (pre-carbon filter)	Facility mister water (post-carbon filter)	Facility mister water (pre-carbon filter)	Detergent A - open container	Detergent A - new container from distributor	Detergent B - open container	Detergent C - open container	Detergent D - open container	Detergent E - open container	Detergent F - open container
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1400	<1500	<1400	<1500	<1500	2,400 EB	<1500	<1400 cn[6]	<15000 cn[16]	<1400	<1500	<1400 cn[6]	<1500 cn[6]	<1500 cn[4]
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2400	<2500	<2300	<2500	<2400	<2500	<2400	<2400 cn[6]	<24000 cn[16]	<2400	<2400	<2400 cn[6]	<2500 cn[6]	<2500 cn[4]
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1400	<1500	<1400	<1500	<1500	<1500	<1500	1,200 J,cn[6]	<15000 cn[16]	<1400	<1500	<1400 cn[6]	<1500 cn[6]	<1500 cn[4]
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2400	<2500	<2300	<2500	<2400	<2500	<2400	<2400 cn[6]	<24000 cn[16]	<2400	<2400	<2400 cn[6]	<2500 cn[6]	<2500 cn[4]
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<1400	<1500	<1400	<1500	<1500	<1500	<1500	<1400 cn[6]	<15000 cn[16]	<1400	<1500	<1400 cn[6]	<1500 cn[6]	<1500 cn[4]
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1400	<1500	<1400	<1500	<1500	<1500	<1500	<1400 cn[6]	<15000 cn[16]	<1400	<1500	<1400 cn[6]	<1500 cn[6]	<1500 cn[4]
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1400	<1500	<1400	<1500	<1500	<1500	<1500	<1400 cn[6]	<15000 cn[16]	<1400	<1500	<1400 cn[6]	<1500 cn[6]	<1500 cn[4]
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<1400	<1500	<1400	<1500	<1500	<1500	<1500	<1400 cn[6]	<15000 cn[16]	<1400	<1500	<1400 cn[6]	34,000 cn[6]	<1500 cn[4]
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluoro-3-methoxypropanoic acid (PFMPA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluoro-4-methoxybutanoic acid (PFMBA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorobutanesulfonic acid (PFBS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorobutanoic acid (PFBA)	<2400	<2500	<2300	<2500	<2400	<2500	<2400	<2400 cn[6]	<24000 cn[16]	<2400	<2400	<2400 cn[6]	<2500 cn[6]	<2500 cn[4]
Perfluorodecanesulfonic acid (PFDS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorodecanoic acid (PFDA)	<940	<980	<930	<990	<970	<990	<970	10,000 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorododecanesulfonic acid (PFDoS)	<1400	<1500	<1400	<1500	<1500	<1500	<1500	<1400 cn[6]	<15000 cn[16]	<1400	<1500	<1400 cn[6]	<1500 cn[6]	<1500 cn[4]
Perfluorododecanoic acid (PFDoA)	<940	<980	<930	<990	<970	<990	<970	4,800 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluoroheptanesulfonic acid (PFHpS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluoroheptanoic acid (PFHpA)	<940	<980	<930	<990	<970	<990	<970	1,500 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<940	<980	<930	<990	<970	<990	<970 cn[5]	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorohexanesulfonic acid (PFHxS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorohexanoic acid (PFHxA)	710 J	<980	750 J	590 J,I	<970	<990	<970	33,000 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorononanesulfonic acid (PFNS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorononanoic acid (PFNA)	<940	<980	<930	<990	<970	<990	<970	1,500 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorooctanesulfonamide (PFOSA)	660 J	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	1,500	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorooctanesulfonic acid (PFOS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorooctanoic acid (PFOA)	570 J	<980	770 J	660 J	<970	<990	<970	17,000 cn[6]	<9700 cn[16]	3,100	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluoropentanesulfonic acid (PFPeS)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluoropentanoic acid (PFPeA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<940 cn[5]	<980 cn[5]	<930	<990	<970	<990	<970	<950 cn[5,6]	<9700 cn[16]	<940 cn[5]	<970	<960 cn[6]	<980 cn[5]	<990 cn[4]
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorotetradecanoic acid (PFTeDA)	<940	<980	<930	<990	<970	<990	<970	1,500 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluorotridecanoic acid (PFTrDA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[5]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Perfluoroundecanoic acid (PFUnA)	<940	<980	<930	<990	<970	<990	<970	<950 cn[6]	<9700 cn[16]	<940	<970	<960 cn[6]	<980 cn[6]	<990 cn[4]
Total PFAS	1,940	ND	1,520	1,250	ND	2,400	ND	71,000	ND	4,600	ND	ND	34,000	ND

Notes:
All samples analyzed using Environmental Protection Agency (EPA) Method 537
All data are reported in nanograms per liter (ng/L), with the exception of powdered detergent samples which are reported in nanograms per gram (ng/g).
Note laboratory analyzed all samples with dilutions since they represent process or product samples.
< = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
EB = compound detected in equipment blank (850 ng/L) (Hart & Hickman, PC data qualifier)
B = compound detected in lab blank and sample
^2 = calibration blank is outside acceptable limits
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the MDL

Table 5
PFAS Concentrations in Dry-cleaning Process Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample Type	Detergent and additive samples					Spotting agent samples							
Sample ID	920025C-DET-2*	DC360006-DET*	DC290002-DET*	920025C-ADD-1*	920025C-ADD-2*	DC340005-SPOT	DC340005-SPOT-2*	DC-SPOT-4	920025C-SPOT*	DC290002-SPOT*	DC-SPOT-3	DC-SPOT-1	DC-SPOT-2
Date	8/6/2025	6/18/2025	6/16/2025	8/6/2025	8/6/2025	6/12/2025	6/12/2025	12/9/2025	8/6/2025	6/16/2025	12/9/2025	9/23/2025	9/23/2025
Sample Description	Detergent G - open container	Detergent H - open container	Detergent I - open container	Additive A - open container	Additive B - open container	Spotting agent A - unopened container at dry-cleaner	Spotting agent B - open container	Spotting agent B - new container from distributor	Spotting agent C - open container	Spotting agent D - open container	Spotting agent D - new container from distributor	Spotting agent E - new container from distributor	Spotting agent F - new container from distributor
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<950	<1.9	<2.0	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<950	<2.9	<3.0	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1400	<2.9	<3.0	<1400	<1500 cn[11]	<1500	<1500	<14000	<1400	540 J	<14000 cn[16]	<1500	<1400 cn
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<950	<1.9	<2.0	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	4,300	<1.9	<2.0	<2400	<2500 cn[11]	<2400	<2500	<24000	<2400	<2300	<24000 cn[16]	<2500	<2400 cn
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1400	<1.9	<2.0	<1400	<1500 cn[11]	<1500	6,800	<14000	<1400	<1400	<14000 cn[16]	<1500	<1400 cn
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2400	<1.9	<2.0	<2400	<2500 cn[11]	<2400	<2500	<24000	<2400	<2300	<24000 cn[16]	<2500	<2400 cn
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<1400	<1.9	<2.0	<1400	<1500 cn[11]	<1500	<1500	<14000	<1400	<1400	<14000 cn[16]	<1500	<1400 cn
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1400	<1.9	<2.0	<1400	<1500 cn[11]	<1500	<1500	<14000	<1400	<1400	<14000 cn[16]	<1500	<1400 cn
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1400	<1.9	<2.0	<1400	<1500 cn[11]	<1500	<1500	<14000	<1400	<1400	<14000 cn[16]	<1500	<1400 cn
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<1400	<1.9	<2.0	<1400	<1500 cn[11]	<1500	<1500	<14000	<1400	<1400	<14000 cn[16]	<1500	<1400 cn
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<950	<1.9	<2.0	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluoro-3-methoxypropanoic acid (PFMPA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluoro-4-methoxybutanoic acid (PFMBA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluorobutanesulfonic acid (PFBS)	<950	<1.9	<2.0	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluorobutanoic acid (PFBA)	<2400	<1.9	<2.0	<2400	<2500 cn[11]	2,600	<2500	<24000	<2400	210,000	<24000 cn[16]	1,300 J	<2400 cn
Perfluorodecanesulfonic acid (PFDS)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluorodecanoic acid (PFDA)	<950	<0.57	1.6	<950	<980 cn[11]	<970	<990	<9600	<960	300,000	<9500 cn[16]	<980	<950 cn
Perfluorododecanesulfonic acid (PFDoS)	<1400	<1.9	<2.0	<1400	<1500 cn[11]	<1500	<1500	<14000	<1400	<1400	<14000 cn[16]	<1500	<1400 cn
Perfluorododecanoic acid (PFDoA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	120,000	<9500 cn[16]	<980	<950 cn
Perfluoroheptanesulfonic acid (PFHpS)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluoroheptanoic acid (PFHpA)	<950	<0.57	<0.59	<950	<980 cn[11]	310 J	510 J	<9600	<960	110,000	<9500 cn[16]	<980	<950 cn
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	60,000	<9500 cn[16]	<980	<950 cn
Perfluorohexanesulfonic acid (PFHxS)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluorohexanoic acid (PFHxA)	<950	<0.57	1.9	<950	<980 cn[11]	470 J	<990	<9600	<960	650,000	<9500 cn[16]	<980	<950 cn
Perfluorononanesulfonic acid (PFNS)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluorononanoic acid (PFNA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	57,000	<9500 cn[16]	<980	<950 cn
Perfluorooctanesulfonamide (PFOSA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluorooctanesulfonic acid (PFOS)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluorooctanoic acid (PFOA)	<950	<0.57	2.4	<950	<980 cn[11]	340 J	<990	<9600	<960	1,800,000	<9500 cn[16]	<980	<950 cn
Perfluoropentanesulfonic acid (PFPeS)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	<930	<9500 cn[16]	<980	<950 cn
Perfluoropentanoic acid (PFPeA)	<950	<0.57	<0.59	<950	<980 cn[11]	560 J	<990	<9600	<960	82,000	<9500 cn[16]	<980	<950 cn
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970 cn[5]	<990 cn[5]	<9600	<960	1,700	<9500 cn[16]	<980	<950 cn
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	200 J	<9500 cn[16]	<980 cn[10]	<950 cn[10]
Perfluorotetradecanoic acid (PFTeDA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	42,000	<9500 cn[16]	<980	<950 cn
Perfluorotridecanoic acid (PFTrDA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	4,000	<9500 cn[16]	<980	<950 cn
Perfluoroundecanoic acid (PFUnA)	<950	<0.57	<0.59	<950	<980 cn[11]	<970	<990	<9600	<960	15,000	<9500 cn[16]	<980	<950 cn
Total PFAS	4,300	ND	2.4	ND	ND	4,300	7,300	ND	ND	3,500,000	ND	1,300	ND

Notes:
All samples analyzed using Environmental Protection Agency (EPA) Method 537
All data are reported in nanograms per liter (ng/L), with the exception of powdered detergent samples which are reported in nanograms per gram (ng/g).
Note laboratory analyzed all samples with dilutions since they represent process or product samples.
< = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
EB = compound detected in equipment blank (850 ng/L) (Hart & Hickman, PC data qualifier)
B = compound detected in lab blank and sample
^2 = calibration blank is outside acceptable limits
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the MDL

Table 6
TOP Concentration Comparison for Groundwater Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Site Name	EPA MCL[1]	NC 2L Standard[2]	$2.75 Cleaners (Klean Rite)				Deluxe Cleaners				Fabric Care Center			
DSCA Site ID			DC340005				DC330005				DC740014			
Sample ID			DC340005-MW-1[T]		DC340005-MW-2		DC330005-MW-6		DC330005-MW-1		DC740014-MW-4		DC740014-MW-2	
Date			6/12/2025		6/12/2025		6/23/2025		6/23/2025		6/26/2025		6/26/2025	
Sample Description			Upgradient		Source		Upgradient		Source		Upgradient		Source	
Analysis Method			EPA 1633A	EPA 1633 TOP	EPA 1633A	EPA 1633 TOP	EPA 1633A	EPA 1633 TOP	EPA 1633A	EPA 1633 TOP	EPA 1633A	EPA 1633 TOP	EPA 1633A	EPA 1633 TOP
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	NS	<3.1	<20	<3.0	<20	<3.5	<20	<3.5	<20	<3.4	<20	<3.2	<20
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NS	<3.1	<20	<3.0	<20	<3.5	<20	<3.5	<20	<3.4	<20	<3.2	<20
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NS	<3.1	<20	<3.0	<20	5.1	<20	<3.5	<20	<3.4	<20	<3.2	<20
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10	10	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NS	<7.8	<49	<7.6	<50	<8.8	<50	<8.7	<50	<8.6	<50	<8.0	<50
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	9.9	<9.9	<1.7	<10	<1.6	<10
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NS	<7.8	<49	<7.6	<50	<8.8	<50	<8.7	<50	<8.6	<50	<8.0	<50
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	13	<9.9	<1.7	<10	<1.6	<10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Perfluorobutanesulfonic acid (PFBS)	NS	NS	6.2	6.2 J	13	14	29	32	10	9.8 J	3.2	<10	1.7	<10
Perfluorobutanoic acid (PFBA)	NS	NS	1.6 J	<20	5.6	<20	44	53	38	33	<3.4	<20	2.5 J	<20
Perfluorodecanesulfonic acid (PFDS)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Perfluorodecanoic acid (PFDA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	8.0	11	<1.7	<10	<1.6	<10
Perfluorododecanesulfonic acid (PFDoS)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7 *1,cn[13]	<10	<1.6 *1,cn[13]	<10
Perfluorododecanoic acid (PFDoA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Perfluoroheptanesulfonic acid (PFHpS)	NS	NS	0.50 J	<9.9	0.67 J	<10	7.2	<10	6.1	7.9 J	<1.2 cn[12]	<10	2.0	<10
Perfluoroheptanoic acid (PFHpA)	NS	NS	1.8	43	5.3	46	82	99	78	86	5.8	9.2 J	13	16
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NS	<7.8	<49	<7.6	<50	<8.8	<50	<8.7	<50	<8.6	<50	<8.0	<50
Perfluorohexanesulfonic acid (PFHxS)	10	NS	6.4	8.9 J	4.3	<10	**170**	**210**	**25**	**30**	**40**	**42**	5.9	7.3 J
Perfluorohexanoic acid (PFHxA)	NS	NS	2.8	23	7.0	29	120	150	62	71	10	12	10	13
Perfluorononanesulfonic acid (PFNS)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Perfluorononanoic acid (PFNA)	10	NS	0.57 J	**15**	<1.5	**14**	4.1	<10	**26**	**34**	<0.51 cn[12]	<10	5.1	<10
Perfluorooctanesulfonamide (PFOSA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	8.6	<9.9	<1.7	<10	<1.6	<10
Perfluorooctanesulfonic acid (PFOS)	4	4 (0.7)	**14 I,cn[7]**	**15**	**21**	**21**	**110 I,cn[7]**	**110 I**	**550**	**650**	**76**	**93**	**24 I,cn[7]**	**33 I**
Perfluorooctanoic acid (PFOA)	4	4 (0.001)	**6.5**	**42**	**14**	**53**	**320**	**330**	**270**	**280**	**15**	**15**	**45**	**47**
Perfluoropentanesulfonic acid (PFPeS)	NS	NS	1.4 J	<9.9	1.5	<10	30	34	6.0	7.4 J	1.5 J	<10	1.2 J	<10
Perfluoropentanoic acid (PFPeA)	NS	NS	1.7	17	9.9	27	76	100	47	66	9.1	11	11	<10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NS	<7.8 *-,cn[1]	<49	<7.6 *-,cn[1]	<50	<8.8	<50	<8.7	<50	<8.6	<50	<8.0	<50
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NS	<3.1	<20	<3.0	<20	<3.5	<20	<3.5	<20	<3.4	<20	<3.2	<20
Perfluorotetradecanoic acid (PFTeDA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Perfluorotridecanoic acid (PFTrDA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Perfluoroundecanoic acid (PFUnA)	NS	NS	<1.6	<9.9	<1.5	<10	<1.8	<10	<1.7	<9.9	<1.7	<10	<1.6	<10
Total PFAS			43	170	82	204	1000	1120	1160	1290	161	182	121	116

Notes:
1) Value shown is Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) dated April 2024.
2) Value shown is North Carolina (NC) 2L Groundwater Standard (2L Standard) dated November 2025. For PFOS and PFOA, per the Fiscal and Regulatory Impact Analysis Amendment to 15A NCAC 02L .0202 dated August 2024, the applicable 2L Standard is the EPA Practical Quantitation Limit (PQL) of 4 nanograms per liter (ng/L) defined based on EPA national laboratory validation results.
All data are reported in ng/L.
Bold values indicate concentrations exceed the MCL.
Underline values indicate concentrations exceed the NC 2L Standard.
TOP = Total Oxidizable Precursor
T = sample turbidity greater than 10 nephelometric turbidity units (Hart & Hickman, PC data qualifier)
NS = not specified; < = less than PQL
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the method detection limit (MDL)
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) acceptable limits biased low
*1 = LCS/LCSD relative percent difference (RPD) exceeds control limits

Table 6
TOP Concentration Comparison for Groundwater Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Site Name	EPA MCL[1]	NC 2L Standard[2]	One Hour Martinizing				Young's Cleaners			
DSCA Site ID			DC360006				DC290002			
Sample ID			DC360006-MW-8		DC360006-MW-2S		DC290002-MW-9		DC290002-MW-3[T]	
Date			6/18/2025		6/18/2025		6/16/2025		6/16/2025	
Sample Description			Upgradient		Source		Upgradient		Source	
Analysis Method			EPA 1633A	EPA 1633 TOP	EPA 1633A	EPA 1633 TOP	EPA 1633A	EPA 1633 TOP	EPA 1633A	EPA 1633 TOP
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	NS	NS	<1.6 *-,cn[15]	<9.9	<1.7 *-,cn[15]	<9.9	<1.6	<10	<1.6	<10
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	NS	<3.1	<20	<3.3	<20	<3.2	<20	<3.1	<20
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NS	<3.1	<20	<3.3	<20	<3.2	<20	<3.1	<20
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NS	<3.1	<20	<3.3	<20	<3.2	<20	<3.1	<20
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	10	10	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NS	<7.8	<49	<8.3	<49	<8.1	<50	<7.8	<50
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NS	<7.8	<49	<8.3	<49	<8.1	<50	<7.8	<50
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluorobutanesulfonic acid (PFBS)	NS	NS	<1.6	5.7 J	280	340	19	17	1.2 J	<10
Perfluorobutanoic acid (PFBA)	NS	NS	3.3	<20	140	490	8.8	19 J	1.6 J	<20
Perfluorodecanesulfonic acid (PFDS)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluorodecanoic acid (PFDA)	NS	NS	<1.6	<9.9	<1.7	<9.9	0.50 J	<10	<1.6	<10
Perfluorododecanesulfonic acid (PFDoS)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluorododecanoic acid (PFDoA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluoroheptanesulfonic acid (PFHpS)	NS	NS	<1.6	<9.9	<1.7	<9.9	0.72 J	<10	<1.6	<10
Perfluoroheptanoic acid (PFHpA)	NS	NS	5.5	41	83	130	9.4	57	1.5 J	44
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NS	<7.8	<49	<8.3	<49	<8.1	<50	<7.8	<50
Perfluorohexanesulfonic acid (PFHxS)	10	NS	3.7	<9.9	9.1	10	5.9	7.4 J	1.9	<10
Perfluorohexanoic acid (PFHxA)	NS	NS	3.4	22	390	430	11	33	3.1	27
Perfluorononanesulfonic acid (PFNS)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluorononanoic acid (PFNA)	10	NS	<1.6	**12**	<1.7	**12**	3.2	**19 l,cn[7]**	0.48 J	**14**
Perfluorooctanesulfonamide (PFOSA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluorooctanesulfonic acid (PFOS)	4	4 (0.7)	<1.6	<9.9	<1.7	<9.9	**32**	**30**	**5.8**	**9.1 J**
Perfluorooctanoic acid (PFOA)	4	4 (0.001)	2.5	**32**	**33**	**67**	**34**	**65**	**6.5**	**42**
Perfluoropentanesulfonic acid (PFPeS)	NS	NS	<1.6	<9.9	2.9	<9.9	0.88 J	<10	0.57 J	<10
Perfluoropentanoic acid (PFPeA)	NS	NS	3.4	17	710	880	13	30	2.9	19
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NS	<7.8	<49	<8.3	<49	<8.1 *-	<50	<7.8 *-	<50
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NS	<3.1	<20	<3.3	<20	<3.2	<20	<3.1	<20
Perfluorotetradecanoic acid (PFTeDA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluorotridecanoic acid (PFTrDA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Perfluoroundecanoic acid (PFUnA)	NS	NS	<1.6	<9.9	<1.7	<9.9	<1.6	<10	<1.6	<10
Total PFAS			21.8	130	1650	2360	138	277	26	155

Notes:
1) Value shown is Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) dated April 2024.
2) Value shown is North Carolina (NC) 2L Groundwater Standard (2L Standard) dated November 2025.
For PFOS and PFOA, per the Fiscal and Regulatory Impact Analysis Amendment to 15A NCAC 02L .0202 dated August 2024, the applicable 2L Standard is the EPA Practical Quantitation Limit (PQL) of 4 nanograms per liter (ng/L) defined based on EPA national laboratory validation results.
All data are reported in ng/L.
Bold values indicate concentrations exceed the MCL.
Underline values indicate concentrations exceed the NC 2L Standard.
TOP = Total Oxidizable Precursor
T = sample turbidity greater than 10 nephelometric turbidity units (Hart & Hickman, PC data qualifier)
NS = not specified; < = less than PQL
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the method detection limit (MDL)
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) acceptable limits biased low
*1 = LCS/LCSD relative percent difference (RPD) exceeds control limits

Table 7
TOP Concentration Comparison for Dry-cleaning Process Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample Type	Virgin dry-cleaning solvent samples				Used dry-cleaning solvent samples				Pre and post- wet wash laundry water samples					
Sample ID	DC290002-VS		DC-VS		DC340005-SS		DC320021 - SS		DC340005-WW-PRE		DC340005-WW-POST		DC340005-WW-BASIN	
Date	6/16/2025		9/23/2025		6/12/2025		7/3/2025		6/12/2025		6/12/2025		6/12/2025	
Sample Description	Virgin petroleum solvent - open container		Virgin PCE solvent - new container from distributor		Used PCE solvent (from waste drum)		Used PCE solvent (from waste drum)		Wet wash supply water (from bathroom sink)		Wet wash spent water (from discharge pipe)		Wet wash spent water (from discharge basin)	
Analysis Method	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1000	<1000	<970	<1000	<980	<1000	<1000	<1000	<960	<1000	<980	<1000	<950	<1000
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1000	<1000	<970	<1000	<980	<1000	<1000	<1000	<960	<1000	<980	<1000	<950	<1000
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<1000	<1000	<970	<1000	<980	<1000	<1000	<1000	<960	<1000	<980	<1000	<950	<1000
6:2 FTCA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1500	<1000	<1500	<1000	6,100	26,000	25,000	36,000	<1400	<1000	<1500	<1000	<1400	<1000
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<1000	<1000	<970	<1000	<980	<1000 cn[3]	<1000	<1000	<960	<1000 cn[3]	<980	<1000 cn[3]	<950	<1000
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2500	<1000	<2400	<1000	<2500	2,200	<2500	1,500	<2400	2,000	<2500	<1000	<2400	<1000
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1500	<1000	<1500	<1000	<1500	3,000	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2500	<1000	<2400	<1000	<2500	6,500	<2500	880 J	<2400	<1000	<2500	<1000	<2400	<1000
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<1500	<1000	<1500	<1000	23,000	420,000	82,000	140,000	<1400	<1000	<1500	<1000	<1400	<1000
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1500	<1000	<1500	<1000	370 J,^2	4,100	350 J	950 J	<1400	<1000	<1500	<1000	<1400	<1000
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1500	<1000	<1500	<1000	<1500	3,400	<1500	3,000	<1400	<1000	<1500	<1000	<1400	<1000
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<1500	<1000	<1500	<1000	12,000	160,000	57,000	470,000	<1400	<1000	<1500	<1000	<1400	<1000
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1000	<1000	<970	<1000	<980	2,700 I	<1000	1,100	<960	<1000	<980	<1000	<950	<1000
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1000	<1000	<970	<1000	<980	<1000	<1000	<1000	<960	<1000	<980	<1000	<950	<1000
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1000	<1000	<970	<1000	<980	<1000	<1000	<1000	<960	<1000	<980	<1000	<950	<1000
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1000	530 J	<970	450 J	<980	<1000	<1000	<1000	<960	<1000	<980	<1000	<950	<1000
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1000	<1000	<970	<1000	<980	<1000	<1000	<1000	<960	<1000	<980	<1000	<950	<1000
Perfluorobutanesulfonic acid (PFBS)	<1000	<1000	<970	<1000	1,800	360,000	440 J	190,000	<960	<1000	<980	<1000	<950	<1000
Perfluorobutanoic acid (PFBA)	<2500	<1000	<2400	<1000	16,000	57,000 B	2,000 J	45,000	<2400	<1000	<2500	<1000	<2400	<1000
Perfluorodecanesulfonic acid (PFDS)	<1000	<1000	<970	<1000	<980	270 J,I	450 J	370 J	<960	<1000	<980	<1000	<950	<1000
Perfluorodecanoic acid (PFDA)	<1000	240 J,B,cn[2]	<970	340 J,B	5,100	47,000 I	2,000	10,000 B,cn[2]	<960	150 J	<980	<1000	<950	350 J,B,cn[2]
Perfluorododecanesulfonic acid (PFDoS)	<1500	<1000	<1500	<1000	<1500	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000
Perfluorododecanoic acid (PFDoA)	<1000	<1000	<970	<1000	2,100	21,000 I	970 J	4,000	<960	<1000	<980	<1000	<950	<1000
Perfluoroheptanesulfonic acid (PFHpS)	<1000	<1000	<970	<1000	<980	180 J	<1000	310 J	<960	<1000	<980	<1000	<950	<1000
Perfluoroheptanoic acid (PFHpA)	<1000	<1000	<970	<1000	3,100	13,000 I,B	550 J	3,800	<960	<1000	<980	<1000	<950	1,200
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<1000	<1000 *+	<970	<1000	<980	<1000 *+	<1000	<1000	<960	<1000 *+	<980	<1000 *+	<950	<1000 *+
Perfluorohexanesulfonic acid (PFHxS)	<1000	<1000	<970	<1000	<980	17,000 I	980 J	4,500	<960	<1000	<980	<1000	<950	<1000
Perfluorohexanoic acid (PFHxA)	<1000	<1000	<970	<1000	57,000	160,000 I	4,700	99,000	<960	<1000	<980	<1000	<950	990 J
Perfluorononanesulfonic acid (PFNS)	<1000	<1000	<970	<1000	<980	<1000	<1000	<1000	<960	<1000	<980	<1000	<950	<1000
Perfluorononanoic acid (PFNA)	<1000	<1000	<970	<1000	1,000 I	6,100 I	470 J	1,700	<960	<1000	<980	<1000	<950	290 J,I
Perfluorooctanesulfonamide (PFOSA)	<1000	<1000	<970	<1000	<980	1,300	<1000	600 J	<960	<1000	<980	<1000	<950	<1000
Perfluorooctanesulfonic acid (PFOS)	<1000	<1000	<970	<1000	1,500	23,000	11,000	20,000	<960	<1000	<980	<1000	<950	<1000
Perfluorooctanoic acid (PFOA)	<1000	<1000	<970	<1000	25,000	120,000 I,B	4,900	22,000	<960	170 J,I	<980	<1000	<950	760 J
Perfluoropentanesulfonic acid (PFPeS)	<1000	<1000	<970	<1000	<980	1,700 I	<1000	660 J	<960	<1000	<980	<1000	<950	<1000
Perfluoropentanoic acid (PFPeA)	<1000	<1000	<970	<1000	6,700	45,000	500 J	77,000	<960	<1000	<980	<1000	<950	610 J
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<1000	<1000	<970	<1000	<980	420 J	<1000	<1000	<960 cn[5]	<1000	<980 cn[5]	<1000	<950	<1000
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<1000	<1000	<970	<1000	<980	<1000 cn[3]	<1000	<1000	<960	<1000 cn[3]	<980	<1000 cn[3]	<950	<1000
Perfluorotetradecanoic acid (PFTeDA)	<1000	<1000	<970	<1000	710 J,I	8,200 I	370 J	1,600	<960	<1000	<980	<1000	<950	<1000
Perfluorotridecanoic acid (PFTrDA)	<1000	<1000	<970	<1000	<980	1,600 I	<1000	300 J	<960	<1000	<980	<1000	<950	<1000
Perfluoroundecanoic acid (PFUnA)	<1000	<1000	<970	<1000	370 J	2,600 I	<1000	700 J,I	<960	<1000	<980	<1000	<950	<1000
Total PFAS	ND	770	ND	790	162,000	1,510,000	194,000	1,130,000	ND	2,300	ND	ND	ND	4,200

Notes:
EPA = Environmental Protection Agency; TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L), with the exception of powdered detergent sample results (nanograms per gram [ng/g]).
Note laboratory analyzed all samples with dilutions since they represent process or product samples.
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NA = not analyzed
EB = compound detected in equipment blank (850 ng/L) (Hart & Hickman, PC data qualifier)
B = compound detected in lab blank and sample
^2 = calibration blank is outside acceptable limits
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
*+ = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased high
J = estimated result less than the PQL but greater than or equal to the MDL

Table 7
TOP Concentration Comparison for Dry-cleaning Process Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample Type	Pre and post- wet wash laundry water samples											
Sample ID	DC320021 - WW - PRE		DC320021-WW-Out		920025C-WW-Pre		920025C-WW-Post		DC360006-WW-PRE		DC360006-WW-POST	
Date	7/3/2025		7/8/2025		8/6/2025		8/20/2025		6/24/2025		6/24/2025	
Sample Description	Wet wash supply water		Wet wash spent water		Wet wash supply water		Wet wash spent water		Wet wash supply water (from bathroom sink)		Wet wash spent water (from discharge basin)	
Analysis Method	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
6:2 FTCA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1000 *+	NA	<1000 *+
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1500	<1000	<1400	<1000	960 J	<1000	<1400	<1000	670 J	<1000	<1400	<1000
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2400	930 J	<2400	<1000	<2500	<1000	<2300	2,100	3,800	<1000	<2400	<1000
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2400	<1000	<2400	<1000	<2500	<1000	<2300	<1000	<2500	<1000	<2400	<1000
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluoro-3-methoxypropanoic acid (PFMPA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluoro-4-methoxybutanoic acid (PFMBA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluorobutanesulfonic acid (PFBS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluorobutanoic acid (PFBA)	<2400	<1000	<2400	<1000	<2500	<1000	<2300	<1000	<2500	<1000	<2400	1,400 B
Perfluorodecanesulfonic acid (PFDS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluorodecanoic acid (PFDA)	<970	340 J,B,cn[2]	<950	360 J,B	<1000	290 J,B,cn[2]	<930	320 J,B	<990	260 J,B,cn[5]	<950	290 J,B,cn[5]
Perfluorododecanesulfonic acid (PFDoS)	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1400	<1000
Perfluorododecanoic acid (PFDoA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluoroheptanesulfonic acid (PFHpS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluoroheptanoic acid (PFHpA)	<970	220 J	<950	840 J,B	<1000	<1000	<930	<1000	<990	<1000	<950	1,100 B
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<970	<1000	<950	<1000	<1000	<1000 cn[10]	<930	<1000	<990 cn[5]	<1000 *+	<950 cn[5]	<1000 *+
Perfluorohexanesulfonic acid (PFHxS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluorohexanoic acid (PFHxA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	870 J
Perfluorononanesulfonic acid (PFNS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluorononanoic acid (PFNA)	<970	100 J	<950	260 J	<1000	<1000	<930	<1000	<990	<1000	<950	290 J,B
Perfluorooctanesulfonamide (PFOSA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluorooctanesulfonic acid (PFOS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluorooctanoic acid (PFOA)	<970	<1000	<950	370 J,B	<1000	<1000	<930	<1000	<990	150 J,B	<950	820 J,B
Perfluoropentanesulfonic acid (PFPeS)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluoropentanoic acid (PFPeA)	<970	260 J	<950	310 J,B	<1000	<1000	<930	<1000	<990	<1000	<950	440 J,B
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluorotetradecanoic acid (PFTeDA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluorotridecanoic acid (PFTrDA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Perfluoroundecanoic acid (PFUnA)	<970	<1000	<950	<1000	<1000	<1000	<930	<1000	<990	<1000	<950	<1000
Total PFAS	ND	1,850	ND	2,140	960	290	ND	2,400	4,500	410	ND	5,200

Notes:
EPA = Environmental Protection Agency; TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L), with the exception of powdered detergent sample results (nanograms per gram [ng/g]).
Note laboratory analyzed all samples with dilutions since they represent process or product samples.
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NA = not analyzed
EB = compound detected in equipment blank (850 ng/L) (Hart & Hickman, PC data qualifier)
B = compound detected in lab blank and sample
^2 = calibration blank is outside acceptable limits
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
*+ = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased high
J = estimated result less than the PQL but greater than or equal to the MDL

Table 7
TOP Concentration Comparison for Dry-cleaning Process Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample Type	Facility mister samples pre and post-carbon													
Sample ID	DC340005-MIST-PRE		DC340005-MIST-POST		DC320021 - Mist - PRE		DC320021 - Mist - POST		920025C-Mist-Pre		920025C-Mist-Post		DC360006-MIST-PRE	
Date	6/12/2025		6/12/2025		7/3/2025		7/3/2025		8/6/2025		8/6/2025		6/24/2025	
Sample Description	Facility mister water (pre-carbon filter)		Facility mister water (post-carbon filter)		Facility mister water (pre-carbon filter)		Facility mister water (post-carbon filter)		Facility mister water (pre-carbon filter)		Facility mister water (post-carbon filter)		Facility mister water (pre-carbon filter)	
Analysis Method	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
6:2 FTCA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1000 *+
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1400	<1000	<1500	<1000	<1400	770 J	<1500	410 J	<1500	<1000 cn[4]	2,400 EB	<1000 cn[4]	<1500	<1000
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<940	<1000 cn[3]	<980	<1000 cn[3]	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2400	<1000	<2500	<1000	<2300	<1000	<2500	<1000	<2400	660 J.cn[4]	<2500	<1000 cn[4]	<2400	<1000
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1500	<1000 cn[4]	<1500	<1000 cn[4]	<1500	<1000
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2400	<1000	<2500	<1000	<2300	<1000	<2500	<1000	<2400	<1000 cn[4]	<2500	<1000 cn[4]	<2400	<1000
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1500	<1000 cn[4]	<1500	<1000 cn[4]	<1500	<1000
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1500	<1000 cn[4]	<1500	<1000 cn[4]	<1500	<1000
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1500	<1000 cn[4]	<1500	<1000 cn[4]	<1500	<1000
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1500	<1000 cn[4]	<1500	<1000 cn[4]	<1500	<1000
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluoro-3-methoxypropanoic acid (PFMPA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluoro-4-methoxybutanoic acid (PFMBA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorobutanesulfonic acid (PFBS)	<940	<1000	<980	<1000	<930	270 J	<990	170 J	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorobutanoic acid (PFBA)	<2400	550 J	<2500	<1000	<2300	890 J	<2500	1,800	<2400	<1000 cn[4]	<2500	<1000 cn[4]	<2400	<1000
Perfluorodecanesulfonic acid (PFDS)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorodecanoic acid (PFDA)	<940	160 J	<980	180 J	<930	490 J,B,cn[2]	<990	460 J,B,cn[2]	<970	320 J,B,cn[2,4]	<990	270 J,B,cn[2,4]	<970	260 J,B,cn[5]
Perfluorododecanesulfonic acid (PFDoS)	<1400	<1000	<1500	<1000	<1400	<1000	<1500	<1000	<1500	<1000 cn[4]	<1500	<1000 cn[4]	<1500	<1000
Perfluorododecanoic acid (PFDoA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluoroheptanesulfonic acid (PFHpS)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluoroheptanoic acid (PFHpA)	<940	180 J	<980	380 J	<930	180 J	<990	300 J	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	460 J,B
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<940	<1000 *+	<980	<1000 *+	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970 cn[5]	<1000 *+
Perfluorohexanesulfonic acid (PFHxS)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorohexanoic acid (PFHxA)	710 J	530 J	<980	<1000	750 J	1,100	590 J,I	1,000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorononanesulfonic acid (PFNS)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorononanoic acid (PFNA)	<940	<1000	<980	120 J	<930	130 J	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	110 J,B
Perfluorooctanesulfonamide (PFOSA)	660 J	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorooctanesulfonic acid (PFOS)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorooctanoic acid (PFOA)	570 J	380 J	<980	330 J	770 J	550 J	660 J	620 J	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	350 J,B
Perfluoropentanesulfonic acid (PFPeS)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluoropentanoic acid (PFPeA)	<940	160 J	<980	310 J	<930	190 J	<990	270 J	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	220 J,B
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<940 cn[5]	<1000	<980 cn[5]	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<940	<1000 cn[3]	<980	<1000 cn[3]	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorotetradecanoic acid (PFTeDA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluorotridecanoic acid (PFTrDA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Perfluoroundecanoic acid (PFUnA)	<940	<1000	<980	<1000	<930	<1000	<990	<1000	<970	<1000 cn[4]	<990	<1000 cn[4]	<970	<1000
Total PFAS	1,940	1,960	ND	1,320	1,520	4,600	1,250	5,000	ND	980	2,400	270	ND	1,400

Notes:
EPA = Environmental Protection Agency; TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L), with the exception of powdered detergent sample results (nanograms per gram [ng/g]).
Note laboratory analyzed all samples with dilutions since they represent process or product samples.
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NA = not analyzed
EB = compound detected in equipment blank (850 ng/L) (Hart & Hickman, PC data qualifier)
B = compound detected in lab blank and sample
^2 = calibration blank is outside acceptable limits
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
*+ = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased high
J = estimated result less than the PQL but greater than or equal to the MDL

Table 7
TOP Concentration Comparison for Dry-cleaning Process Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample Type	Detergent and additive samples													
Sample ID	DC340005-DET		DC-DET-1		DC340005-DET-2		DC340005-DET-3		DC320021 - DET - 1		DC320021 - DET - 2		920025C-DET-1	
Date	6/12/2025		12/9/2025		6/12/2025		6/12/2025		7/3/2025		7/3/2025		8/6/2025	
Sample Description	Detergent A - open container		Detergent A - new container from distributor		Detergent B - open container		Detergent C - open container		Detergent D - open container		Detergent E - open container		Detergent F - open container	
Analysis Method	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
6:2 FTCA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1400 cn[6]	<1000 cn[4]	<15000 cn[16]	<10000	<1400	<1000	<1500	<1000	<1400 cn[6]	430 J,cn[8]	<1500 cn[6]	<1000 cn[8]	<1500 cn[4]	<1000 cn[4]
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<950 cn[6]	<1000 cn[3,4]	<9700 cn[16]	<10000	<940	<1000 cn[3]	<970	<1000 cn[3]	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2400 cn[6]	<1000 cn[4]	<24000 cn[16]	<10000	<2400	<1000	<2400	<1000	<2400 cn[6]	<1000 cn[8]	<2500 cn[6]	<1000 cn[8]	<2500 cn[4]	<1000 cn[4]
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1,200 J,cn[6]	<1000 cn[4]	<15000 cn[16]	<10000	<1400	<1000	<1500	<1000	<1400 cn[6]	<1000 cn[8]	<1500 cn[6]	<1000 cn[8]	<1500 cn[4]	<1000 cn[4]
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2400 cn[6]	<1000 cn[4]	<24000 cn[16]	<10000	<2400	<1000	<2400	<1000	<2400 cn[6]	<1000 cn[8]	<2500 cn[6]	<1000 cn[8]	<2500 cn[4]	<1000 cn[4]
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<1400 cn[6]	<1000 cn[4]	<15000 cn[16]	4,300 J	<1400	<1000	<1500	<1000	<1400 cn[6]	<1000 cn[8]	<1500 cn[6]	920 J,cn[8]	<1500 cn[4]	<1000 cn[4]
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1400 cn[6]	<1000 cn[4]	<15000 cn[16]	<10000	<1400	<1000	<1500	<1000	<1400 cn[6]	<1000 cn[8]	<1500 cn[6]	<1000 cn[8]	<1500 cn[4]	<1000 cn[4]
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1400 cn[6]	<1000 cn[4]	<15000 cn[16]	<10000	<1400	<1000	<1500	<1000	<1400 cn[6]	<1000 cn[8]	<1500 cn[6]	<1000 cn[8]	<1500 cn[4]	<1000 cn[4]
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<1400 cn[6]	7,400 cn[4]	<15000 cn[16]	<10000	<1400	<1000	<1500	<1000	<1400 cn[6]	<1000 cn[8]	34,000 cn[6]	20,000 cn[8]	<1500 cn[4]	<1000 cn[4]
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluoro-3-methoxypropanoic acid (PFMPA)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluoro-4-methoxybutanoic acid (PFMBA)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorobutanesulfonic acid (PFBS)	<950 cn[6]	19,000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorobutanoic acid (PFBA)	<2400 cn[6]	<1000 cn[4]	<24000 cn[16]	<10000	<2400	<1000	<2400	<1000	<2400 cn[6]	<1000 cn[8]	<2500 cn[6]	<1000 cn[8]	<2500 cn[4]	<1000 cn[4]
Perfluorodecanesulfonic acid (PFDS)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorodecanoic acid (PFDA)	10,000 cn[6]	5,700 cn[4]	<9700 cn[16]	<10000	<940	170 J	<970	150 J	<960 cn[6]	380 J,B,cn[2,8]	<980 cn[6]	340 J,B,cn[2,8]	<990 cn[4]	300 J,B,cn[2,4]
Perfluorododecanesulfonic acid (PFDoS)	<1400 cn[6]	320 J,cn[4]	<15000 cn[16]	<10000	<1400	<1000	<1500	<1000	<1400 cn[6]	<1000 cn[8]	<1500 cn[6]	<1000 cn[8]	<1500 cn[4]	<1000 cn[4]
Perfluorododecanoic acid (PFDoA)	4,800 cn[6]	2,500 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluoroheptanesulfonic acid (PFHpS)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluoroheptanoic acid (PFHpA)	1,500 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<950 cn[6]	<1000 *+,cn[4]	<9700 cn[16]	<10000	<940	<1000 *+	<970	<1000 *+	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorohexanesulfonic acid (PFHxS)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorohexanoic acid (PFHxA)	33,000 cn[6]	24,000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorononanesulfonic acid (PFNS)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorononanoic acid (PFNA)	1,500 cn[6]	1,000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorooctanesulfonamide (PFOSA)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	1,500	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorooctanesulfonic acid (PFOS)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorooctanoic acid (PFOA)	17,000 cn[6]	13,000 cn[4]	<9700 cn[16]	<10000	3,100	1,700	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluoropentanesulfonic acid (PFPeS)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluoropentanoic acid (PFPeA)	<950 cn[6]	1,500 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<950 cn[5,6]	<1000 cn[4]	<9700 cn[16]	<10000	<940 cn[5]	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	260 J,cn[8]	<990 cn[4]	<1000 cn[4]
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<950 cn[6]	<1000 cn[3,4]	<9700 cn[16]	<10000	<940	<1000 cn[3]	<970	<1000 cn[3]	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorotetradecanoic acid (PFTeDA)	1,500 cn[6]	560 J,cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluorotridecanoic acid (PFTrDA)	<950 cn[6]	<1000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Perfluoroundecanoic acid (PFUnA)	<950 cn[6]	45,000 cn[4]	<9700 cn[16]	<10000	<940	<1000	<970	<1000	<960 cn[6]	<1000 cn[8]	<980 cn[6]	<1000 cn[8]	<990 cn[4]	<1000 cn[4]
Total PFAS	71,000	120,000	ND	4,300	4,600	1,900	ND	150	ND	810	34,000	22,000	ND	300

Notes:
EPA = Environmental Protection Agency; TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L), with the exception of powdered detergent sample results (nanograms per gram [ng/g]).
Note laboratory analyzed all samples with dilutions since they represent process or product samples.
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NA = not analyzed
EB = compound detected in equipment blank (850 ng/L) (Hart & Hickman, PC data qualifier)
B = compound detected in lab blank and sample
^2 = calibration blank is outside acceptable limits
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
*+ = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased high
J = estimated result less than the PQL but greater than or equal to the MDL

Table 7
TOP Concentration Comparison for Dry-cleaning Process Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample Type	Detergent and additive samples										Spotting agent samples			
Sample ID	920025C-DET-2		DC360006-DET		DC290002-DET		920025C-ADD-1		920025C-ADD-2		DC340005-SPOT		DC340005-SPOT-2	
Date	8/6/2025		6/18/2025		6/16/2025		8/6/2025		8/6/2025		6/12/2025		6/12/2025	
Sample Description	Detergent G - open container		Detergent H - open container		Detergent I - open container		Additive A - open container		Additive B - open container		Spotting agent A - unopened container at dry cleaner		Spotting agent B - open container	
Analysis Method	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<950	<1000	<1.9	<2.0	<2.0	<2.0	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<950	<1000	<2.9	<0.59	<3.0	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
6:2 FTCA	NA	NA	NA	<0.59	NA	<0.60	NA	NA	NA	NA	NA	NA	NA	NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1400	<1000	<2.9	<3.0	<3.0	<3.0	<1400	<1000 cn[4]	<1500 cn[11]	<1000 cn[4]	<1500	<1000	<1500	<1000 cn[4]
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<950	<1000	<1.9	<2.0	<2.0	<2.0	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000 cn[3]	<990	<1000 cn[3,4]
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	4,300	<1000	<1.9	<2.0	<2.0	<2.0	<2400	<1000 cn[4]	<2500 cn[11]	<1000 cn[4]	<2400	<1000	<2500	<1000 cn[4]
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1400	<1000	<1.9	<3.0	<2.0	<3.0	<1400	<1000 cn[4]	<1500 cn[11]	<1000 cn[4]	<1500	<1000	6,800	<1000 cn[4]
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2400	<1000	<1.9	<2.0	<2.0	<2.0	<2400	<1000 cn[4]	<2500 cn[11]	<1000 cn[4]	<2400	<1000	<2500	<1000 cn[4]
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<1400	<1000	<1.9	<2.0	<2.0	<2.0	<1400	<1000 cn[4]	<1500 cn[11]	<1000 cn[4]	<1500	<1000	<1500	<1000 cn[4]
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1400	<1000	<1.9	<2.0	<2.0	<2.0	<1400	<1000 cn[4]	<1500 cn[11]	<1000 cn[4]	<1500	<1000	<1500	<1000 cn[4]
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1400	<1000	<1.9	<2.0	<2.0	<2.0	<1400	<1000 cn[4]	<1500 cn[11]	<1000 cn[4]	<1500	<1000	<1500	<1000 cn[4]
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<1400	<1000	<1.9	<2.0	<2.0	<2.0	<1400	<1000 cn[4]	<1500 cn[11]	17.000 cn[4]	<1500	<1000	<1500	<1000 cn[4]
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<950	<1000	<1.9	<2.0	<2.0	<2.0	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluoro-3-methoxypropanoic acid (PFMPA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	280 J	<990	<1000 cn[4]
Perfluoro-4-methoxybutanoic acid (PFMBA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluorobutanesulfonic acid (PFBS)	<950	<1000	<1.9	<2.0	<2.0	<2.0	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluorobutanoic acid (PFBA)	<2400	<1000	<1.9	<2.0	<2.0	<2.0	<2400	<1000 cn[4]	<2500 cn[11]	<1000 cn[4]	2,600	42,000	<2500	<1000 cn[4]
Perfluorodecanesulfonic acid (PFDS)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluorodecanoic acid (PFDA)	<950	300 J,B,cn[2]	<0.57	0.26 J,B,cn[2]	1.6	0.26 J,B,cn[2]	<950	450 J,B,cn[2,4]	<980 cn[11]	480 J,B,cn[2,4]	<970	230 J	<990	<1000 cn[4]
Perfluorododecanesulfonic acid (PFDoS)	<1400	<1000	<1.9	<2.0	<2.0	<2.0	<1400	<1000 cn[4]	<1500 cn[11]	<1000 cn[4]	<1500	<1000	<1500	<1000 cn[4]
Perfluorododecanoic acid (PFDoA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluoroheptanesulfonic acid (PFHpS)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluoroheptanoic acid (PFHpA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	310 J	290 J	510 J	<1000 cn[4]
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<950	<1000 cn[10]	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000 *+	<990	<1000 *+, cn[4]
Perfluorohexanesulfonic acid (PFHxS)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluorohexanoic acid (PFHxA)	<950	<1000	<0.57	<0.59	1.9	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	470 J	<1000	<990	<1000 cn[4]
Perfluorononanesulfonic acid (PFNS)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluorononanoic acid (PFNA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	190 J	<990	<1000 cn[4]
Perfluorooctanesulfonamide (PFOSA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluorooctanesulfonic acid (PFOS)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluorooctanoic acid (PFOA)	<950	<1000	<0.57	<0.59	2.4	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	340 J	330 J	<990	<1000 cn[4]
Perfluoropentanesulfonic acid (PFPeS)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluoropentanoic acid (PFPeA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	560 J	460 J	<990	<1000 cn[4]
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970 cn[5]	<1000	<990 cn[5]	<1000 cn[4]
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000 cn[3]	<990	<1000 cn[3,4]
Perfluorotetradecanoic acid (PFTeDA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluorotridecanoic acid (PFTrDA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Perfluoroundecanoic acid (PFUnA)	<950	<1000	<0.57	<0.59	<0.59	<0.60	<950	<1000 cn[4]	<980 cn[11]	<1000 cn[4]	<970	<1000	<990	<1000 cn[4]
Total PFAS	4,300	300	ND	0.26	5.9	0.26	ND	450	ND	17,000	4,300	44,000	7,300	ND

Notes:
EPA = Environmental Protection Agency; TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L), with the exception of powdered detergent sample results (nanograms per gram [ng/g]).
Note laboratory analyzed all samples with dilutions since they represent process or product samples.
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NA = not analyzed
EB = compound detected in equipment blank (850 ng/L) (Hart & Hickman, PC data qualifier)
B = compound detected in lab blank and sample
^2 = calibration blank is outside acceptable limits
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
*+ = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased high
J = estimated result less than the PQL but greater than or equal to the MDL

Table 7
TOP Concentration Comparison for Dry-cleaning Process Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Sample Type	Spotting agent samples											
Sample ID	DC-SPOT-4		920025C-SPOT		DC290002-SPOT		DC-SPOT-3		DC-SPOT-1		DC-SPOT-2	
Date	12/9/2025		8/6/2025		6/16/2025		12/9/2025		9/23/2025		9/23/2025	
Sample Description	Spotting agent B - new container from distributor		Spotting agent C - open container		Spotting agent D - open container		Spotting agent D - new container from distributor		Spotting agent E - new container from distributor		Spotting agent F - new container from distributor	
Analysis Method	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP	EPA 537	EPA 537 TOP
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
6:2 FTCA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<14000	<10000	<1400	<1000 cn[4]	540 J	<1000 cn[4]	<14000 cn[16]	<10000	<1500	<1000 cn[4]	<1400 cn	<1000 cn[4]
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<24000	<10000	<2400	<1000 cn[4]	<2300	550 J,cn[4]	<24000 cn[16]	<10000	<2500	<1000 cn[4]	<2400 cn	<1000 cn[4]
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<14000	<10000	<1400	<1000 cn[4]	<1400	<1000 cn[4]	<14000 cn[16]	<10000	<1500	<1000 cn[4]	<1400 cn	<1000 cn[4]
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<24000	<10000	<2400	<1000 cn[4]	<2300	<1000 cn[4]	<24000 cn[16]	<10000	<2500	<1000 cn[4]	<2400 cn	<1000 cn[4]
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<14000	7,700 J	<1400	<1000 cn[4]	<1400	<1000 cn[4]	<14000 cn[16]	<10000	<1500	5,600 cn[4]	<1400 cn	<1000 cn[4]
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<14000	<10000	<1400	<1000 cn[4]	<1400	<1000 cn[4]	<14000 cn[16]	<10000	<1500	<1000 cn[4]	<1400 cn	<1000 cn[4]
N-methylperfluorooctane sulfonamide (NMeFOSA)	<14000	<10000	<1400	<1000 cn[4]	<1400	<1000 cn[4]	<14000 cn[16]	<10000	<1500	<1000 cn[4]	<1400 cn	<1000 cn[4]
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<14000	<10000	<1400	<1000 cn[4]	<1400	<1000 cn[4]	<14000 cn[16]	<10000	<1500	<1000 cn[4]	<1400 cn	<1000 cn[4]
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluoro-3-methoxypropanoic acid (PFMPA)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluoro-4-methoxybutanoic acid (PFMBA)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorobutanesulfonic acid (PFBS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorobutanoic acid (PFBA)	<24000	<10000	<2400	<1000 cn[4]	210,000	<1000 cn[4]	<24000 cn[16]	<10000	1,300 J	<1000 cn[4]	<2400 cn	<1000 cn[4]
Perfluorodecanesulfonic acid (PFDS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorodecanoic acid (PFDA)	<9600	<10000	<960	410 J,B,cn[2,4]	300,000	<1000 cn[2,4]	<9500 cn[16]	<10000	<980	540 J,B,cn[4]	<950 cn	320 J,B,cn[4]
Perfluorododecanesulfonic acid (PFDoS)	<14000	<10000	<1400	<1000 cn[4]	<1400	<1000 cn[4]	<14000 cn[16]	<10000	<1500	<1000 cn[4]	<1400 cn	<1000 cn[4]
Perfluorododecanoic acid (PFDoA)	<9600	<10000	<960	<1000 cn[4]	120,000	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluoroheptanesulfonic acid (PFHpS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluoroheptanoic acid (PFHpA)	<9600	<10000	<960	<1000 cn[4]	110,000	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<9600	<10000	<960	<1000 cn[4]	60,000	<1000 *+,cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorohexanesulfonic acid (PFHxS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorohexanoic acid (PFHxA)	<9600	<10000	<960	<1000 cn[4]	650,000	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorononanesulfonic acid (PFNS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorononanoic acid (PFNA)	<9600	<10000	<960	<1000 cn[4]	57,000	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorooctanesulfonamide (PFOSA)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorooctanesulfonic acid (PFOS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorooctanoic acid (PFOA)	<9600	<10000	<960	<1000 cn[4]	1,800,000	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluoropentanesulfonic acid (PFPeS)	<9600	<10000	<960	<1000 cn[4]	<930	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluoropentanoic acid (PFPeA)	<9600	<10000	<960	<1000 cn[4]	82,000	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<9600	<10000	<960	<1000 cn[4]	1,700	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<9600	<10000	<960	<1000 cn[4]	200 J	<1000 cn[4]	<9500 cn[16]	<10000	<980 cn[10]	<1000 cn[4]	<950 cn[10]	<1000 cn[4]
Perfluorotetradecanoic acid (PFTeDA)	<9600	<10000	<960	<1000 cn[4]	42,000	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluorotridecanoic acid (PFTrDA)	<9600	<10000	<960	<1000 cn[4]	4,000	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Perfluoroundecanoic acid (PFUnA)	<9600	<10000	<960	<1000 cn[4]	15,000	<1000 cn[4]	<9500 cn[16]	<10000	<980	<1000 cn[4]	<950 cn	<1000 cn[4]
Total PFAS	ND	7,700	ND	410	3,500,000	550	ND	ND	1,300	6,100	ND	320

Notes:
EPA = Environmental Protection Agency; TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L), with the exception of powdered detergent sample results (nanograms per gram [ng/g]).
Note laboratory analyzed all samples with dilutions since they represent process or product samples.
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NA = not analyzed
EB = compound detected in equipment blank (850 ng/L) (Hart & Hickman, PC data qualifier)
B = compound detected in lab blank and sample
^2 = calibration blank is outside acceptable limits
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
*+ = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased high
J = estimated result less than the PQL but greater than or equal to the MDL

Table 8
PFAS Concentrations in Duplicate Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

DSCA Site ID	DC340005			DC920051			DC330005			DC410009		
Sample ID	DC340005-MW-2	DC340005-DUP-1	RPD	DC920051-MW-6	DC920051-DUP	RPD	DC330005-MW-1	DC330005-DUP	RPD	DC410009-MW-2RS	DC410009-DUP	RPD
Date	6/12/2025	6/12/2025		6/24/2025	6/24/2025		6/23/2025	6/23/2025		6/16/2025	6/16/2025	
Sample Description	Source	Duplicate		Source	Duplicate		Source	Duplicate		Source	Duplicate	
Analysis	EPA 1633A											
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.0	<3.5	NC	<3.4	<3.5	NC	<3.5	<3.7	NC	<3.5	<3.4	NC
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.0	<3.5	NC	<3.4	<3.5	NC	<3.5	<3.7	NC	<3.5	<3.4	NC
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.0	<3.5	NC	<3.4	<3.5	NC	<3.5	<3.7	NC	<3.5	<3.4	NC
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5	<1.7	NC	<1.7	1.3 J	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<7.6	<8.7	NC	<8.5	<8.7	NC	<8.7	<9.3	NC	<8.8	<8.6	NC
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.5	<1.7	NC	<1.7	<1.7	NC	9.9	8.7	13	<1.8	<1.7	NC
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<7.6	<8.7	NC	<8.5	<8.7	NC	<8.7	<9.3	NC	<8.8	<8.6	NC
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.5	<1.7	NC	<1.7	<1.7	NC	13	12	8.0	<1.8	<1.7	NC
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluorobutanesulfonic acid (PFBS)	13	14	7.4	44	44	0.0	10	9.8	2.0	6.1	6.0	1.7
Perfluorobutanoic acid (PFBA)	5.6	5.4	3.6	35	35	0.0	38	40	5.1	16	16	0.0
Perfluorodecanesulfonic acid (PFDS)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluorodecanoic acid (PFDA)	<1.5	<1.7	NC	<1.7	<1.7	NC	8.0	8.5	6.1	4.1	4.8	16
Perfluorododecanesulfonic acid (PFDoS)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluorododecanoic acid (PFDoA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluoroheptanesulfonic acid (PFHpS)	0.67 J	0.71 J	5.8	1.6 J	1.7	6.1	6.1	6.7	9.4	3.2	2.9	9.8
Perfluoroheptanoic acid (PFHpA)	5.3	5.3	0.0	89	91	2.2	78	76	2.6	19	18	5.4
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<7.6	<8.7	NC	<8.5	<8.7	NC	<8.7	<9.3	NC	<8.8	<8.6	NC
Perfluorohexanesulfonic acid (PFHxS)	4.3	4.3	0.0	17	17	0.0	25	27	7.7	11	11	0.0
Perfluorohexanoic acid (PFHxA)	7.0	6.8	2.9	82	79	3.7	62	61	1.6	28	30	6.9
Perfluorononanesulfonic acid (PFNS)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluorononanoic acid (PFNA)	<1.5	0.50 J	NC	1.5 J	<1.7 cn[12]	NC	26	26	0.0	8.4	8.9	5.8
Perfluorooctanesulfonamide (PFOSA)	<1.5	<1.7	NC	<1.7	<1.7	NC	8.6	8.0	7.2	<1.8	<1.7	NC
Perfluorooctanesulfonic acid (PFOS)	21	22	4.7	6.3 I,cn[7]	6.1 I,cn[7]	3.2	550	540	1.8	140	150	6.9
Perfluorooctanoic acid (PFOA)	14	14	0.0	110	100	9.5	270	270	0.0	73	66	10
Perfluoropentanesulfonic acid (PFPeS)	1.5	1.7	13	2.0	<1.7	NC	6.0	6.7	11	2.6	2.7	3.8
Perfluoropentanoic acid (PFPeA)	9.9	10	1.0	96	100	4.1	47	47	0.0	26	27	3.8
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<7.6 *-,cn[1]	<8.7 *-,cn[1]	NC	<8.5	<8.7	NC	<8.7	<9.3	NC	<8.8	<8.6	NC
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.0	<3.5	NC	<3.4	<3.5	NC	<3.5	<3.7	NC	<3.5	<3.4	NC
Perfluorotetradecanoic acid (PFTeDA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluorotridecanoic acid (PFTrDA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Perfluoroundecanoic acid (PFUnA)	<1.5	<1.7	NC	<1.7	<1.7	NC	<1.7	<1.9	NC	<1.8	<1.7	NC
Total PFAS	82	85	NA	480	480	NA	1160	1150	NA	340	340	NA

Notes:
EPA = Environmental Protection Agency
TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L).
Bold values exceed 30% relative percent difference (RPD).
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NC = not calculated; NA = not applicable
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the MDL
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased low
*1 = LCS/LCSD RPD exceeds control limits
B = compound detected in lab blank and sample

Table 8
PFAS Concentrations in Duplicate Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

DSCA Site ID	DC740014			DC120001			DC320014			DC490007		
Sample ID	DC740014-MW-2	DC740014-DUP	RPD	DC120001-MW-7	DC120001-DUP-1	RPD	DC320014-MW-10	DC320014-DUP	RPD	DC490007-MW-1	DC490007-DUP-1	RPD
Date	6/26/2025	6/26/2025		6/26/2025	6/26/2025		6/25/2025	6/25/2025		6/24/2025	6/24/2025	
Sample Description	Source	Duplicate		Source	Duplicate		Source	Duplicate		Source	Duplicate	
Analysis	EPA 1633A											
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.6	<1.6	NC	<1.5 *-,cn[15]	<1.5 *-,cn[15]	NC	<1.8 *-,cn[15]	<1.7 *-,cn[15]	NC	<1.5	<1.5	NC
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.2	<3.3	NC	<3.0	<3.0	NC	<3.6	<3.5	NC	<3.1	<3.1	NC
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.2	<3.3	NC	<3.0	<3.0	NC	<3.6	<3.5	NC	<3.1	<3.1	NC
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.2	<3.3	NC	<3.0	<3.0	NC	<3.6	<3.5	NC	<3.1	<3.1	NC
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<8.0	<8.1	NC	<7.5	<7.5	NC	<9.0	<8.7	NC	<7.7	<7.7	NC
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<8.0	<8.1	NC	<7.5	<7.5	NC	<9.0	<8.7	NC	<7.7	<7.7	NC
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluorobutanesulfonic acid (PFBS)	1.7	1.5 J	13	6.4	6.6	3.1	6.3	6.2	1.6	0.96 J	0.86 J	11
Perfluorobutanoic acid (PFBA)	2.5 J	2.4 J	4.1	9.8	10	2.0	4.5	4.3	4.5	1.0 J	1.0 J	0.0
Perfluorodecanesulfonic acid (PFDS)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluorodecanoic acid (PFDA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluorododecanesulfonic acid (PFDoS)	<1.6 *1,cn[13]	<1.6 *1,cn[13]	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluorododecanoic acid (PFDoA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluoroheptanesulfonic acid (PFHpS)	2.0	1.8	11	10	9.3	7.3	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluoroheptanoic acid (PFHpA)	13	12	8.0	9.1	9.7	6.4	6.0	5.5	8.7	<1.5	<1.5	NC
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<8.0	<8.1	NC	<7.5	<7.5	NC	<9.0	<8.7	NC	<7.7	<7.7	NC
Perfluorohexanesulfonic acid (PFHxS)	5.9	6.2	5.0	14	14	0.0	1.8	2.0	11	1.6	1.6	0.0
Perfluorohexanoic acid (PFHxA)	10	10	0.0	24	25	4.1	6.5	6.6	1.5	1.7	1.7	0.0
Perfluorononanesulfonic acid (PFNS)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluorononanoic acid (PFNA)	5.1	5.3	3.8	2.8	2.7	3.6	2.2	2.2 I,cn[7]	0.0	<1.5	<1.5	NC
Perfluorooctanesulfonamide (PFOSA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluorooctanesulfonic acid (PFOS)	24 I,cn[7]	26 I,cn[7]	8.0	47 I,cn[7]	42 I,cn[7]	11	8.2	8.7	5.9	<1.5	<1.5	NC
Perfluorooctanoic acid (PFOA)	45	45	0.0	86	80	7.2	14	15	6.9	<1.5	<1.5	NC
Perfluoropentanesulfonic acid (PFPeS)	1.2 J	1.1 J	8.7	3.7	3.1	18	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluoropentanoic acid (PFPeA)	11	11	0.0	44	44	0.0	6.3	6.0	4.9	2.1	1.9	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<8.0	<8.1	NC	<7.5	<7.5	NC	<9.0	<8.7	NC	<7.7	<7.7	NC
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.2	<3.3	NC	<3.0	<3.0	NC	<3.6	<3.5	NC	<3.1	<3.1	NC
Perfluorotetradecanoic acid (PFTeDA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluorotridecanoic acid (PFTrDA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Perfluoroundecanoic acid (PFUnA)	<1.6	<1.6	NC	<1.5	<1.5	NC	<1.8	<1.7	NC	<1.5	<1.5	NC
Total PFAS	121	122	NA	257	246	NA	56	57	NA	7.4	7.1	NA

Notes:
EPA = Environmental Protection Agency
TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L).
Bold values exceed 30% relative percent difference (RPD).
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NC = not calculated; NA = not applicable
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the MDL
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased low
*1 = LCS/LCSD RPD exceeds control limits
B = compound detected in lab blank and sample

Table 8
PFAS Concentrations in Duplicate Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

DSCA Site ID	DC340039			DC360006			DC920056			DC600093		
Sample ID	DC340039-MW-2	DC340039-DUP-1	RPD	DC360006-MW-2S	DC360006-DUP-1	RPD	DC920056-MW-1	DC920056-DUP	RPD	DC600093-MW-4S	DC600093-DUP-1	RPD
Date	7/2/2025	7/2/2025		6/18/2025	6/18/2025		6/24/2025	6/24/2025		6/30/2025	6/30/2025	
Sample Description	Source	Duplicate		Source	Duplicate		Source	Duplicate		Source	Duplicate	
Analysis	EPA 1633A											
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.7	<1.6	NC	<1.7 *-,cn[15]	<1.6	NC	<1.8	<1.7 *-,cn[15]	NC	<1.7	<1.5	NC
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.3	<3.3	NC	<3.3	<3.2	NC	<3.5	<3.5	NC	<3.4	<3.1	NC
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.3	<3.3	NC	<3.3	<3.2	NC	<3.5	<3.5	NC	<3.4	<3.1	NC
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.3	<3.3	NC	<3.3	<3.2	NC	<3.5	<3.5	NC	<3.4	<3.1	NC
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<8.3	<8.2	NC	<8.3	<8.0	NC	<8.8	<8.7	NC	<8.4	<7.7	NC
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<8.3	<8.2	NC	<8.3	<8.0	NC	<8.8	<8.7	NC	<8.4	<7.7	NC
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluorobutanesulfonic acid (PFBS)	1.2 J	1.2 J	0.0	280	360	25	5.0	4.0	22	9.5	8.9	6.5
Perfluorobutanoic acid (PFBA)	1.8 J	1.8 J	0.0	140	150	6.9	3.2 J	2.9 J	9.8	7.4	7.5	1.3
Perfluorodecanesulfonic acid (PFDS)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluorodecanoic acid (PFDA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluorododecanesulfonic acid (PFDoS)	<1.7 *1,cn[13]	<1.6 *1,cn[13]	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7 *1,cn[13]	<1.5 *1,cn[13]	NC
Perfluorododecanoic acid (PFDoA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluoroheptanesulfonic acid (PFHpS)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	0.68 J	NC
Perfluoroheptanoic acid (PFHpA)	1.1 J	1.1 J	0.0	83	80	3.7	3.0	2.9	3.4	9.6	10	4.1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<8.3	<8.2	NC	<8.3	<8.0	NC	<8.8	<8.7	NC	<8.4	<7.7	NC
Perfluorohexanesulfonic acid (PFHxS)	1.9	2.1	10	9.1	11	19	9.8	8.7	12	7.9	17	**73**
Perfluorohexanoic acid (PFHxA)	1.9	2.2	15	390	400	2.5	4.4	4.5	2.2	18	19	5.4
Perfluorononanesulfonic acid (PFNS)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluorononanoic acid (PFNA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	0.98 J	0.94 J	4.2
Perfluorooctanesulfonamide (PFOSA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluorooctanesulfonic acid (PFOS)	2.2	1.8	20	<1.7	<1.6	NC	<1.8	<1.7	NC	16	15	6.5
Perfluorooctanoic acid (PFOA)	2.5	2.4	4.1	33	37	11	4.1	4.3	4.8	31	30	3.3
Perfluoropentanesulfonic acid (PFPeS)	<1.7	<1.6	NC	2.9	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluoropentanoic acid (PFPeA)	1.6 J	1.6	0.0	710	790	11	4.0	3.7	7.8	21	22	4.7
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<8.3	<8.2	NC	<8.3	<8.0	NC	<8.8	<8.7	NC	<8.4	<7.7	NC
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.3	<3.3	NC	<3.3	<3.2	NC	<3.5	<3.5	NC	<3.4	<3.1	NC
Perfluorotetradecanoic acid (PFTeDA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluorotridecanoic acid (PFTrDA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Perfluoroundecanoic acid (PFUnA)	<1.7	<1.6	NC	<1.7	<1.6	NC	<1.8	<1.7	NC	<1.7	<1.5	NC
Total PFAS	14.2	14.2	NA	1650	1830	NA	33.5	31.0	NA	121	131	NA

Notes:
EPA = Environmental Protection Agency
TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L).
Bold values exceed 30% relative percent difference (RPD).
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NC = not calculated; NA = not applicable
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the MDL
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased low
*1 = LCS/LCSD RPD exceeds control limits
B = compound detected in lab blank and sample

Table 8
PFAS Concentrations in Duplicate Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

DSCA Site ID	DC320038			DC290002			DC340005			DC320021		
Sample ID	DC320038-MW-4	DC320038-DUP	RPD	DC290002-MW-3	DC290002-DUP	RPD	DC340005-WW-BASIN	DC340005-DUP-2	RPD	DC320021 - Mist - PRE	DC320021 - DUP	RPD
Date	6/19/2025	6/19/2025		6/16/2025	6/16/2025		6/12/2025	6/12/2025		7/3/2025	7/3/2025	
Sample Description	Source	Duplicate		Source	Duplicate		Wet wash spent water (from discharge basin)			Dry-cleaning machine separator water (pre-carbon filter)		
Analysis	EPA 1633A						EPA 537					
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.3	<3.6	NC	<3.1	<3.1	NC	<1400	<1400	NC	<1400	<1500	NC
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.3	<3.6	NC	<3.1	<3.1	NC	<950	<960	NC	<930	<970	NC
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.3	<3.6	NC	<3.1	<3.1	NC	<2400	<2400	NC	<2300	<2400	NC
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<1400	<1400	NC	<1400	<1500	NC
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<2400	<2400	NC	<2300	<2400	NC
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<8.3	<9.0	NC	<7.8	<7.8	NC	<1400	<1400	NC	<1400	<1500	NC
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<1400	<1400	NC	<1400	<1500	NC
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<1400	<1400	NC	<1400	<1500	NC
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<8.3	<9.0	NC	<7.8	<7.8	NC	<1400	<1400	NC	<1400	<1500	NC
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluorobutanesulfonic acid (PFBS)	26	26	0.0	1.2 J	1.4 J	15	<950	<960	NC	<930	<970	NC
Perfluorobutanoic acid (PFBA)	140	140	0.0	1.6 J	1.7 J	6.1	<2400	<2400	NC	<2300	<2400	NC
Perfluorodecanesulfonic acid (PFDS)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluorodecanoic acid (PFDA)	2.9	2.3	23	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluorododecanesulfonic acid (PFDoS)	<1.7	<1.8	NC	<1.6	<1.6	NC	<1400	<1400	NC	<1400	<1500	NC
Perfluorododecanoic acid (PFDoA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluoroheptanesulfonic acid (PFHpS)	2.1	1.8	15	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluoroheptanoic acid (PFHpA)	61	55	10	1.5 J	1.4 J	6.9	<950	<960	NC	<930	<970	NC
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<8.3	<9.0	NC	<7.8	<7.8	NC	<950	<960	NC	<930	<970	NC
Perfluorohexanesulfonic acid (PFHxS)	9.7	9.5	2.1	1.9	1.8	5.4	<950	<960	NC	<930	<970	NC
Perfluorohexanoic acid (PFHxA)	93	93	0.0	3.1	2.7	14	<950	<960	NC	750 J	730 J	2.7
Perfluorononanesulfonic acid (PFNS)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluorononanoic acid (PFNA)	21	22	4.7	0.48 J	0.45 J	6.5	<950	<960	NC	<930	<970	NC
Perfluorooctanesulfonamide (PFOSA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluorooctanesulfonic acid (PFOS)	87	83	4.7	5.8	5.9	1.7	<950	<960	NC	<930	<970	NC
Perfluorooctanoic acid (PFOA)	150	140	6.9	6.5	5.4	18	<950	<960	NC	770 J	800 J	3.8
Perfluoropentanesulfonic acid (PFPeS)	3.2	3.6	12	0.57 J	0.63 J	10	<950	<960	NC	<930	<970	NC
Perfluoropentanoic acid (PFPeA)	100	96	4.1	2.9	3.0	3.4	<950	<960	NC	<930	<970	NC
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<8.3 *-,cn[1]	<9.0 *-,cn[1]	NC	<7.8 *-	<7.8 *-	NC	<950	<960	NC	<930	<970	NC
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.3	<3.6	NC	<3.1	<3.1	NC	<950	<960	NC	<930	<970	NC
Perfluorotetradecanoic acid (PFTeDA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluorotridecanoic acid (PFTrDA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Perfluoroundecanoic acid (PFUnA)	<1.7	<1.8	NC	<1.6	<1.6	NC	<950	<960	NC	<930	<970	NC
Total PFAS	700	670	NA	25.6	24.4	NA	ND	ND	NA	1520	1530	NA

Notes:
EPA = Environmental Protection Agency
TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L).
Bold values exceed 30% relative percent difference (RPD).
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NC = not calculated; NA = not applicable
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the MDL
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased low
*1 = LCS/LCSD RPD exceeds control limits
B = compound detected in lab blank and sample

Table 8
PFAS Concentrations in Duplicate Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

DSCA Site ID	920025C						DC360006		
Sample ID	920025C-WW-Pre	920025C-DUP	RPD	920025C-WW-Pre	920025C-DUP	RPD	DC360006-WW-POST	DC360006-DUP-2	RPD
Date	8/6/2025	8/6/2025		8/6/2025	8/6/2025		6/24/2025	6/24/2025	
Sample Description	Wet wash supply water			Wet wash supply water			Wet wash spent water (from discharge basin)		
Analysis	EPA 537			EPA 537 TOP			EPA 537		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	960 J	<1400	NC	<1000	<1000	NC	<1400	<1500	NC
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2500	<2300	NC	<1000	<1000	NC	<2400	<2500	NC
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1500	<1400	NC	<1000	<1000	NC	<1400	<1500	NC
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2500	<2300	NC	<1000	<1000	NC	<2400	<2500	NC
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<1500	<1400	NC	<1000	<1000	NC	<1400	<1500	NC
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1500	<1400	NC	<1000	<1000	NC	<1400	<1500	NC
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1500	<1400	NC	<1000	<1000	NC	<1400	<1500	NC
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<1500	<1400	NC	<1000	<1000	NC	<1400	<1500	NC
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorobutanesulfonic acid (PFBS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorobutanoic acid (PFBA)	<2500	<2300	NC	<1000	<1000	NC	<2400	<2500	NC
Perfluorodecanesulfonic acid (PFDS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorodecanoic acid (PFDA)	<1000	<930	NC	290 J,B,cn[2]	360 J,B,cn[2]	22	<950	<990	NC
Perfluorododecanesulfonic acid (PFDoS)	<1500	<1400	NC	<1000	<1000	NC	<1400	<1500	NC
Perfluorododecanoic acid (PFDoA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluoroheptanesulfonic acid (PFHpS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluoroheptanoic acid (PFHpA)	<1000	<930	NC	<1000	270 J,B	NC	<950	<990	NC
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<1000	<930	NC	<1000 cn[10]	<1000	NC	<950 cn[5]	<990 cn[5]	NC
Perfluorohexanesulfonic acid (PFHxS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorohexanoic acid (PFHxA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorononanesulfonic acid (PFNS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorononanoic acid (PFNA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorooctanesulfonamide (PFOSA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorooctanesulfonic acid (PFOS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorooctanoic acid (PFOA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluoropentanesulfonic acid (PFPeS)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluoropentanoic acid (PFPeA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorotetradecanoic acid (PFTeDA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluorotridecanoic acid (PFTrDA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Perfluoroundecanoic acid (PFUnA)	<1000	<930	NC	<1000	<1000	NC	<950	<990	NC
Total PFAS	ND	ND	NA	290	630	NA	ND	ND	NA

Notes:
EPA = Environmental Protection Agency
TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L).
Bold values exceed 30% relative percent difference (RPD).
NS = not specified; < = less than practical quantitation limit (PQL)
ND = not detected above laboratory method detection limit (MDL)
NC = not calculated; NA = not applicable
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or equal to the MDL
*- = laboratory control spike (LCS) and/or laboratory control spike duplicate (LCSD) outside acceptance limits biased low
*1 = LCS/LCSD RPD exceeds control limits
B = compound detected in lab blank and sample

Table 9
PFAS Concentrations in Quality Assurance/ Quality Control Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Site Name	$2.75 Cleaners (Klean Rite)		Carriage House Cleaners		Deluxe Cleaners		Everhart Cleaners		Fabric Care Center		Ferree Cleaners	
DSCA Site ID	DC340005		DC920051		DC330005		DC410009		DC740014		DC120001	
Sample ID	DC340005-EB	DC340005-FB	DC920051-EB	DC920051-FB	DC330005-EB	DC330005-FB	DC410009-EB	DC410009-FB	DC740014-EB	DC740014-FB	DC120001-EB	DC120001-FB
Date	6/12/2025	6/12/2025	6/24/2025	6/24/2025	6/23/2025	6/23/2025	6/16/2025	6/16/2025	6/26/2025	6/26/2025	6/26/2025	6/26/2025
Analysis	EPA 1633A											
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5 *-,cn[15]	<1.6 *-,cn[15]
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.8	<3.2	<3.1	<3.1	<3.1	<2.9	<2.9	<3.1	<2.7	<3.0	<3.1	<3.2
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.8	<3.2	<3.1	<3.1	<3.1	<2.9	<2.9	<3.1	<2.7	<3.0	<3.1	<3.2
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.8	<3.2	<3.1	<3.1	<3.1	<2.9	<2.9	<3.1	<2.7	<3.0	<3.1	<3.2
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<7.1	<7.9	<7.7	<7.8	<7.8	<7.2	<7.3	<7.8	<6.9	<7.5	<7.7	<8.1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<7.1	<7.9	<7.7	<7.8	<7.8	<7.2	<7.3	<7.8	<6.9	<7.5	<7.7	<8.1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorobutanesulfonic acid (PFBS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorobutanoic acid (PFBA)	<2.8	<3.2	<3.1	<3.1	<3.1	<2.9	<2.9	<3.1	<2.7	<3.0	<3.1	<3.2
Perfluorodecanesulfonic acid (PFDS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorodecanoic acid (PFDA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorododecanesulfonic acid (PFDoS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4 *1,cn[13]	<1.5 *1,cn[13]	<1.5	<1.6
Perfluorododecanoic acid (PFDoA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluoroheptanesulfonic acid (PFHpS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluoroheptanoic acid (PFHpA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<7.1	<7.9	<7.7	<7.8	<7.8	<7.2	<7.3	<7.8	<6.9	<7.5	<7.7	<8.1
Perfluorohexanesulfonic acid (PFHxS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorohexanoic acid (PFHxA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorononanesulfonic acid (PFNS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorononanoic acid (PFNA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorooctanesulfonamide (PFOSA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorooctanesulfonic acid (PFOS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4 cn[14]	<1.5	<1.5	<1.6
Perfluorooctanoic acid (PFOA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluoropentanesulfonic acid (PFPeS)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluoropentanoic acid (PFPeA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<7.1 *-,cn[1]	<7.9 *-,cn[1]	<7.7	<7.8	<7.8	<7.2	<7.3	<7.8	<6.9	<7.5	<7.7	<8.1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2.8	<3.2	<3.1	<3.1	<3.1	<2.9	<2.9	<3.1	<2.7	<3.0	<3.1	<3.2
Perfluorotetradecanoic acid (PFTeDA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluorotridecanoic acid (PFTrDA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6
Perfluoroundecanoic acid (PFUnA)	<1.4	<1.6	<1.5	<1.6	<1.6	<1.4	<1.5	<1.6	<1.4	<1.5	<1.5	<1.6

Notes:
EPA = Environmental Protection Agency
TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L).
NS = not specified; < = less than practical quantitation limit (PQL)
B = compound detected in lab blank and sample
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or
equal to the method detection limit (MDL)
*1 = laboratory control spike (LCS)/laboratory control spike
duplicate (LCSD) relative percent difference (RPD) exceeds control limits
*- = LCS and/or LCSD is outside acceptable limits biased low

Table 9
PFAS Concentrations in Quality Assurance/ Quality Control Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Site Name	Hollywood Cleaners			Iredell Laundry		NS Farrington		One Hour Martinizing		Reaves Spic & Span	
DSCA Site ID	DC320014			DC490007		DC340039		DC360006		DC360006	
Sample ID	DC320014-EB-1	DC320014-EB-2	DC320014-FB	DC490007-EB	DC490007-FB	DC340039-EB	DC340039-FB	DC360006-EB	DC360006-FB	DC920056-EB-1	DC920056-FB
Date	6/25/2025	6/25/2025	6/25/2025	6/24/2025	6/24/2025	7/2/2025	7/2/2025	6/18/2025	6/18/2025	6/24/2025	6/24/2025
Analysis	EPA 1633A										
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.5 *-,cn[15]	<1.6 *-,cn[15]	<1.5 *-,cn[15]	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5 *-,cn[15]	<1.5
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.0	<3.2	<3.0	<3.3	<3.1	<3.2	<3.2	<3.2	<3.2	<3.0	<3.0
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.0	<3.2	<3.0	<3.3	<3.1	<3.2	<3.2	<3.2	<3.2	<3.0	<3.0
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.0	<3.2	<3.0	<3.3	<3.1	<3.2	<3.2	<3.2	<3.2	<3.0	<3.0
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<7.4	<7.9	<7.5	<8.2	<7.8	<8.1	<7.9	<8.1	<7.9	<7.6	<7.6
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<7.4	<7.9	<7.5	<8.2	<7.8	<8.1	<7.9	<8.1	<7.9	<7.6	<7.6
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorobutanesulfonic acid (PFBS)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorobutanoic acid (PFBA)	<3.0	<3.2	<3.0	<3.3	<3.1	<3.2	<3.2	<3.2	<3.2	<3.0	<3.0
Perfluorodecanesulfonic acid (PFDS)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorodecanoic acid (PFDA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorododecanesulfonic acid (PFDoS)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6 *1,cn[13]	<1.6 *1,cn[13]	<1.6	<1.6	<1.5	<1.5
Perfluorododecanoic acid (PFDoA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluoroheptanesulfonic acid (PFHpS)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluoroheptanoic acid (PFHpA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<7.4	<7.9	<7.5	<8.2	<7.8	<8.1	<7.9	<8.1	<7.9	<7.6	<7.6
Perfluorohexanesulfonic acid (PFHxS)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorohexanoic acid (PFHxA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorononanesulfonic acid (PFNS)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorononanoic acid (PFNA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorooctanesulfonamide (PFOSA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorooctanesulfonic acid (PFOS)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorooctanoic acid (PFOA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluoropentanesulfonic acid (PFPeS)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluoropentanoic acid (PFPeA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<7.4	<7.9	<7.5	<8.2	<7.8	<8.1	<7.9	<8.1	<7.9	<7.6	<7.6
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.0	<3.2	<3.0	<3.3	<3.1	<3.2	<3.2	<3.2	<3.2	<3.0	<3.0
Perfluorotetradecanoic acid (PFTeDA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluorotridecanoic acid (PFTrDA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5
Perfluoroundecanoic acid (PFUnA)	<1.5	<1.6	<1.5	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.5	<1.5

Notes:
EPA = Environmental Protection Agency
TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L).
NS = not specified; < = less than practical quantitation limit (PQL)
B = compound detected in lab blank and sample
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or
equal to the method detection limit (MDL)
*1 = laboratory control spike (LCS)/laboratory control spike
duplicate (LCSD) relative percent difference (RPD) exceeds control limits
*- = LCS and/or LCSD is outside acceptable limits biased low

Table 9
PFAS Concentrations in Quality Assurance/ Quality Control Samples
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

Site Name	Wash Zone			White Star Laundry		Youngs Cleaners		A Cleaner World #203		A Cleaner World #206			
DSCA Site ID	DC600093			DC320038		DC290002		DC320021		920025C			
Sample ID	DC600093-EB-1	DC600093-EB-2	DC600093-FB	DC320038-EB	DC320038-FB	DC290002-EB	DC290002-FB	DC320021 - EB	DC320021 - FB	920025C-EB	920025C-FB	920025C-EB	920025C-FB
Date	6/30/2025	6/30/2025	6/30/2025	6/19/2025	6/19/2025	6/16/2025	6/16/2025	7/3/2025	7/3/2025	8/6/2025	8/6/2025	8/6/2025	8/6/2025
Analysis	EPA 1633A							EPA 537		EPA 537		EPA 537 TOP	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.9	<2.9	<3.2	<3.1	<3.2	<3.5	<3.2	<1500	<1500	850 J	<1500	<1000	<1000
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.9	<2.9	<3.2	<3.1	<3.2	<3.5	<3.2	<970	<990	<950	<980	<1000	<1000
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.9	<2.9	<3.2	<3.1	<3.2	<3.5	<3.2	<2400	<2500	<2400	<2500	<1000	<1000
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<1500	<1500	<1400	<1500	<1000	<1000
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<2400	<2500	<2400	<2500	<1000	<1000
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<7.3	<7.2	<8.0	<7.8	<8.1	<8.7	<8.1	<1500	<1500	<1400	<1500	<1000	<1000
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<1500	<1500	<1400	<1500	<1000	<1000
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<1500	<1500	<1400	<1500	<1000	<1000
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<7.3	<7.2	<8.0	<7.8	<8.1	<8.7	<8.1	<1500	<1500	<1400	<1500	<1000	<1000
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluorobutanesulfonic acid (PFBS)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluorobutanoic acid (PFBA)	<2.9	<2.9	<3.2	<3.1	<3.2	<3.5	<3.2	<2400	<2500	<2400	<2500	<1000	<1000
Perfluorodecanesulfonic acid (PFDS)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluorodecanoic acid (PFDA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	320 J,B,cn[2]	280 J,B,cn[2]
Perfluorododecanesulfonic acid (PFDoS)	<1.5 *1,cn[13]	<1.4 *1,cn[13]	<1.6 *1,cn[13]	<1.6	<1.6	<1.7	<1.6	<1500	<1500	<1400	<1500	<1000	<1000
Perfluorododecanoic acid (PFDoA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluoroheptanesulfonic acid (PFHpS)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluoroheptanoic acid (PFHpA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<7.3	<7.2	<8.0	<7.8	<8.1	<8.7	<8.1	<970	<990	<950	<980	<1000 cn[5]	<1000
Perfluorohexanesulfonic acid (PFHxS)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluorohexanoic acid (PFHxA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluorononanesulfonic acid (PFNS)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluorononanoic acid (PFNA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	2,300 I	<1000
Perfluorooctanesulfonamide (PFOSA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluorooctanesulfonic acid (PFOS)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluorooctanoic acid (PFOA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	270 J	<1000
Perfluoropentanesulfonic acid (PFPeS)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluoropentanoic acid (PFPeA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<7.3	<7.2	<8.0	<7.8 *-,cn[1]	<8.1 *-,cn[1]	<8.7 *-	<8.1 *-	<970	<990	<950	<980	<1000	<1000
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2.9	<2.9	<3.2	<3.1	<3.2	<3.5	<3.2	<970	<990	<950	<980	<1000	<1000
Perfluorotetradecanoic acid (PFTeDA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluorotridecanoic acid (PFTrDA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000
Perfluoroundecanoic acid (PFUnA)	<1.5	<1.4	<1.6	<1.6	<1.6	<1.7	<1.6	<970	<990	<950	<980	<1000	<1000

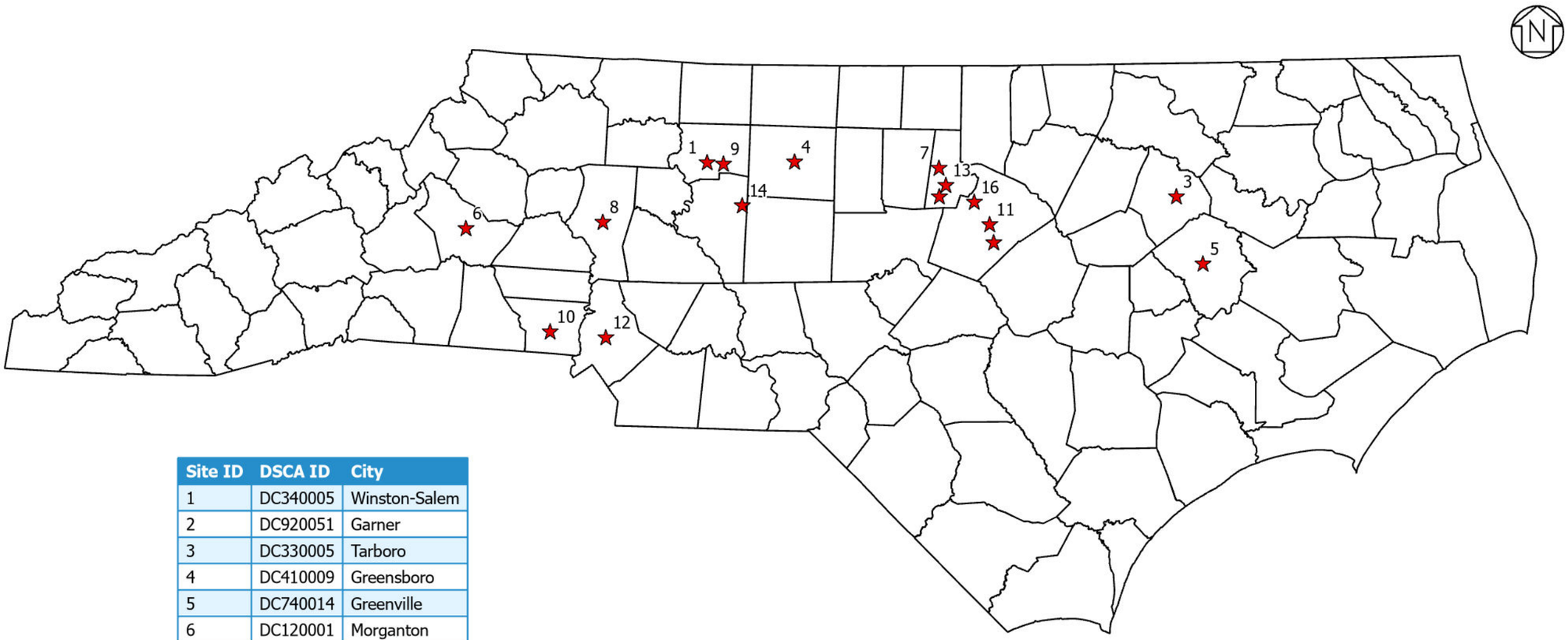
Notes:
EPA = Environmental Protection Agency
TOP = Total Oxidizable Precursor
All data are reported in nanograms per liter (ng/L).
NS = not specified; < = less than practical quantitation limit (PQL)
B = compound detected in lab blank and sample
cn = refer to Table 10 for case narrative flag descriptions
I = value is estimated maximum possible concentration (EMPC)
J = estimated result less than the PQL but greater than or
equal to the method detection limit (MDL)
*1 = laboratory control spike (LCS)/laboratory control spike
duplicate (LCSD) relative percent difference (RPD) exceeds control limits
*- = LCS and/or LCSD is outside acceptable limits biased low

Table 10
Summary of Case Narrative Flags
North Carolina Dry-Cleaning Solvent Cleanup Act Program PFAS Study

No.	Description
1	Recovery for the analyte in the laboratory control spike sample is outside the QC acceptance limits. However, the target was outside specification by less than 10%, the LCS is within the QC acceptance limit, and the analyte is not detected in the sample.
2	Analyte was detected in the method blank.
3	Recovery for the analyte is outside the QC acceptance limits in the closing CCV standard due to the matrix of the sample.
4	Sample injection standard peak areas are outside of the QC limits for both the initial injection and the re-injection. The value is from the initial injection of the sample.
5	Recovery for the analyte is outside the QC acceptance limits in the opening CCV standard. However, the result is high and the analyte is not detected in the sample.
6	Sample injection standard peak areas are outside of the QC limits for both the initial injection and the re-extraction. The value is from the initial injection of the sample.
7	Transition mass ratio in the analytical batch was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.
8	Sample injection standard peak areas are below the QC limits for both the initial injection and the re-injection. Value is from the initial injection of the sample.
10	Recovery for the analyte is outside the QC acceptance limits in the opening and closing CCV standard. However, the result is high and the analyte is not detected in the sample.
11	Sample injection standard peak areas are outside the QC acceptance limits. The sample was re-injected within the required holding time and the sample injection standard peak areas was within QC acceptance limits. However, the recovery for the labeled isotope(s) in the reinjected sample is outside QC acceptance limits. The value is from the initial injection of the sample.
12	Analyte was marked as non-detect due to a detection below RL and failing ion ratio.
13	Analyte has an RPD outside of the QC acceptance limit in the LCSD. However, the individual recoveries meet acceptance limits and the analyte is not detected.
14	Isotopes for the analyte are outside QC acceptance limits. However, the recovery in the equipment blank sample is less than 200%.
15	Analyte is out of QC acceptance limits in the lower-level LCS. However, the recovery for this analyte is within QC acceptance limits in the LCS.
16	Sample injection standard peak areas are below the QC acceptance limit for both the full volume injections and the diluted injections. Value is from the diluted injection of the sample.

Notes:
QC = quality control; RL = reporting limit (equivalent to practical quantitation limit)
RPD = relative percentage deviation; LCS = laboratory control spike; LCSD = laboratory control spike duplicate
CCV = continuing calibration verification

Figure



Site ID	DSCA ID	City
1	DC340005	Winston-Salem
2	DC920051	Garner
3	DC330005	Tarboro
4	DC410009	Greensboro
5	DC740014	Greenville
6	DC120001	Morganton
7	DC320014	Durham
8	DC490007	Statesville
9	DC340039	Winston-Salem
10	DC360006	Gastonia
11	DC920056	Raleigh
12	DC600093	Charlotte
13	DC320038	Durham
14	DC290002	Thomasville
15	DC320021	Durham
16	920025C	Raleigh

FIGURE 1. SITE LOCATION MAP

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Appendix A
PFAS Sampling Checklist

PFAS Sampling Checklist

Site Name: _____ Site Location: _____

Project Number: _____ Project Manager: _____ Weather:_____

☐ Field staff have reviewed the Hart & Hickman, PC standard operating procedures for PFAS sample collection and the "Not Recommended" and "Recommended" items listed below. Variances are recorded and have been authorized by the Project Manager (PM).

Describe variances or alternative procedures used during PFAS sample collection authorized by the PM:

_____

_____

_____

Field Staff Name: _____ Date: _____

Field Staff Signature: _____ Time: _____

Not Recommended and Recommended Items

Not Recommended	Recommended
Field Equipment [1]	
Teflon® containing or other fluoropolymer coated or containing materials. Note that text fragments such as "perfluoro", "fluoro", or "fluorosurfactant" may identify potential PFAS-containing materials. Trademarks include Teflon®, Hostaflon®, Kynar®, Neoflon®, and Tefzel®[2]	High-density polyethylene (HDPE), polypropylene, silicone, stainless steel, nylon, polyvinyl chloride (PVC), acetate, cotton, and rubber materials
Low-density polyethylene (LDPE) materials [2]	Ziploc® bags that do not come in direct contact with the sample media [2]
Waterproof field books	Rite In The Rain® Field Books
Self-sticking notes and similar office products (i.e., Post-it® Notes)	Loose paper (non-waterproof)
Larger point Sharpies and other markers	Ball-point pens, fine/ultra-fine point Sharpies®
Plastic clipboards, binders, or spiral hard cover notebooks	Aluminum field clipboards or Masonite materials
Chemical (blue) ice packs	Regular ice (contained in Ziploc® bags)
Field Clothing and PPE	
New unwashed clothing, clothing laundered using fabric softener, or clothing treated for stain resistance, insect resistance, or ultraviolet protection	Well-laundered clothing made of natural fibers (preferably cotton)
Water/stain/dirt-resistant clothing including but not limited to GoreTex™, RUCO®, Resist Spills™, Scotchgard™, and Tyvek®	Rain gear made with polyurethane, PVC, wax-coated fabrics, rubber, or neoprene
Sampling during heavy rain is not recommended unless the sampling site is covered with a rain canopy	Rain canopy should only be touched or moved prior to and following sampling activities
Traffic safety vests (unless screened and confirmed to be PFAS-free)	PFAS-free clothing in high visibility colors
Non-PFAS free boots or boots potentially constructed with PFAS-containing materials or potentially treated with PFAS for water/stain/dirt-resistance, unless required for project specific safety [3]	Boots made of polyurethane or PVC [3]
	Boots designated as PFAS-free [4]
	Disposable PFAS-free overboots [4]
Latex gloves	Powderless nitrile gloves

Not Recommended	Recommended
Field Clothing and PPE (continued)	
Sunscreens and insect repellants should not be applied near the sample collection area and hands should be washed after applying and handling these products	Sunscreens – Banana Boat® Sport Performance Coolzone Broad Spectrum, Banana Boat® Sunscreen Lotion Broad Spectrum, Banana Boat® Performance Sunscreen Stick, Coppertone® Sport® High-Performance AccuSpray, and Neutrogena Beach Defense® Water + Sun Barrier Lotion [6] Insect Repellents – OFF!® Deep Woods® or Sawyer Permethrin
First-aid wrappers (except in staging area or where medically necessary)	
Personal care products (PCPs), such as cosmetics, moisturizers, hand cream, or other related products, should be applied prior to arriving on-site and used in limited quantities. Hands should be washed after applying and handling these products [5].	
Sample Containers	
LDPE or glass [7] containers	HDPE or polypropylene containers
Teflon-lined caps	Unlined polypropylene caps
Equipment Decontamination	
Decon 90®	Alconox®, Liquinox®, and/or Citranox®
Water from a municipal drinking water supply or on-site well that has not been tested for PFAS-content [7]	PFAS-free drilling fluids
	Potable water from municipal drinking water supply or water from an on-site well or other source that has been tested to confirm acceptable PFAS-content [8]
	Laboratory-provided PFAS-free water
Aluminum foil or LDPE sheeting	HDPE sheeting or PFAS-free plastic sheeting [3]
	Polyethylene or PVC brushes for scrubbing
Food Considerations	
Do not handle, consume, or interact with food items while on-site sampling. Do not drink within the sampling or staging areas (see additional information under the recommended list).	Adequate hydration is important for safety; therefore, the intent of this guidance is not to discourage drinking water by field staff. Move outside the sampling and staging areas for drinking. Remove gloves before drinking and don fresh gloves after drinking.
	Eat off-site and wash hands before and after eating. If eating on-site is necessary, establish a separate eating area away from sampling and staging areas.

Notes:

1. New gloves should be worn when handling sampling equipment, sampling containers, and during sample collection.

2. Equipment that includes PFAS-containing parts may be used if other options are not available and the PFAS-coated part is internal to the equipment and does not come into contact with the external environment or the sample. In addition, such equipment may be appropriate if a project specific equipment blank sample shows acceptable results.

3. LDPE does not contain PFAS in the raw material but may adsorb PFAS or become contaminated with PFAS through the manufacturing process. In general, avoid using LDPE that will come into contact with the sampling material. However, if other options are not feasible, LDPE may be used if an equipment blank has confirmed it to be PFAS-free. Also, LDPE bags (i.e., Ziploc® bags) and/or plastic sheeting may be used if they do not come into direct contact with the sampling media. It is acceptable to use Ziploc® bags for secondary containerization of samples and ice when shipping samples. It is also acceptable to cover drilling equipment (i.e., augers) with acceptable plastic sheeting following decontamination.

4. Boots that are designated as PFAS-free or boots made with polyurethane or PVC are considered acceptable for PFAS-sampling. Polyurethane or PVC boots may be uncomfortable for sites where extensive walking is needed and the safety of field personnel should always take precedence. If standard steel-toed boots are required for safety, and the boots are not known to be PFAS-free, staff should avoid touching footwear during sampling activities and footwear should not come into contact with sampling equipment or sample media. Disposable PFAS-free overboots may also be worn and discarded after use. If footwear is touched, gloves should be changed and hands should be washed before resuming sample collection. Field personnel should discuss appropriate footwear to be used during PFAS sample collection with the Project Manager.

5. Some historical guidance documents indicated that PCPs should not be applied on the day of the sampling event. However, more recent guidance documents have relaxed this requirement based on data indicating no documented cross-contamination of samples. Therefore, PCPs may be used, but staff should keep use at a minimum and be aware of the potential for cross-contamination. PCPs should not be applied in the sample collection area and hands should be washed after applying and handling these products.

6. This is not a complete list of allowable items. Other items not listed must be evaluated and approved prior to use in the field.

7. Glass containers do not inherently contain PFAS, but PFAS may adsorb to glass. Therefore, glass containers should not be used for water, leachate, or other aqueous samples. Glass containers can be used for dry or solid samples if adsorbed PFAS on the glass can be extracted by the laboratory as part of the sample preparation.

8. For most projects municipal water and/or distilled water may be used for decontaminating equipment and initial decontamination rinsing. However, laboratory-provided PFAS-free water or other acceptable water (such as PFAS and organic free water) should be used for final decontamination rinsing. In some cases, sampling of the municipal water and/or distilled water source may be considered.

Appendix B
Photo Log



Photograph 1: Representative view of low-flow groundwater sampling techniques using peristaltic pump and HDPE tubing.



Photograph 2: Representative view of purchased virgin PCE solvent (unopened) prior to sample collection.

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Charlotte, NC 28203
704.586.0007(p) 704.586.0373(f)



Photograph 3: Representative view of spent waste solvent sample collection.



Photograph 4: Representative view of spent waste solvent sample collection.

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Photograph 5: Representative view of detergent (previously used) sample collection.



Photograph 6: Representative view of spotting agent (previously opened) sample collection.

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704.586.0007(p) 704.586.0373(f)



Photograph 7: Representative view of facility wet wash water source sample collection.



Photograph 8: Representative view of post-wet wash water sample collection.
Green arrow indicates sample collection point within concrete basin.



Photograph 9: Representative view of separator water (pre-carbon) prior to sample collection.



Photograph 10: Representative view of separator water (post-carbon) sample collection.

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Photograph 11: Representative view of purchased spotting agent/detergent (unopened) prior to sample collection.



Photograph 12: Representative view of coolers used for sample shipment including custody seals.

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Appendix C
Groundwater Sampling Site Figures

MW-1 (UPGRADIENT)	
PFOS	14 ng/L
PFOA	6.5 ng/L

MW-2 (SOURCE)	
PFOS	21 ng/L
PFOA	14 ng/L

MW-1S (UPGRADIENT)	
PFOS	<1.7 ng/L
PFOA	1.9 ng/L

MW-6 (SOURCE)	
PFOS	6.3 ng/L
PFOA	110 ng/L

LEGEND

PILOT STUDY SITE 1
(DC340005) DRY CLEANER LOCATION

ESTIMATED PCE PLUME

GROUNDWATER FLOW DIRECTION

N

APPROXIMATE
0 60 120
SCALE IN FEET

LEGEND

PILOT STUDY SITE 2
(DC920051) DRY CLEANER LOCATION

ESTIMATED PCE PLUME

GROUNDWATER FLOW DIRECTION

N

APPROXIMATE
0 60 120
SCALE IN FEET

REFER TO TABLES AND LABORATORY ANALYTICAL REPORTS FOR DATA FLAGS ASSOCIATED WITH DETECTED CONCENTRATIONS.

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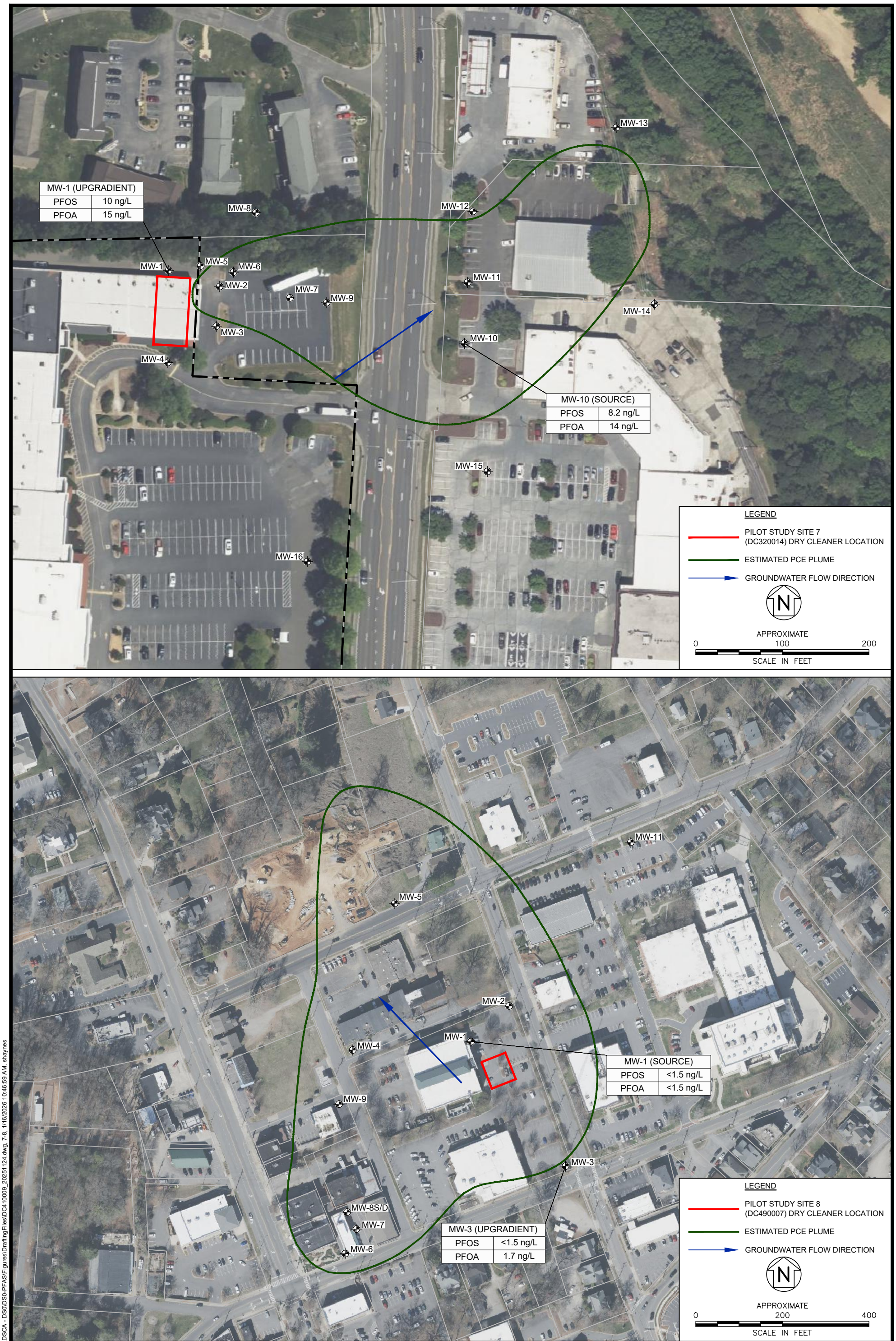
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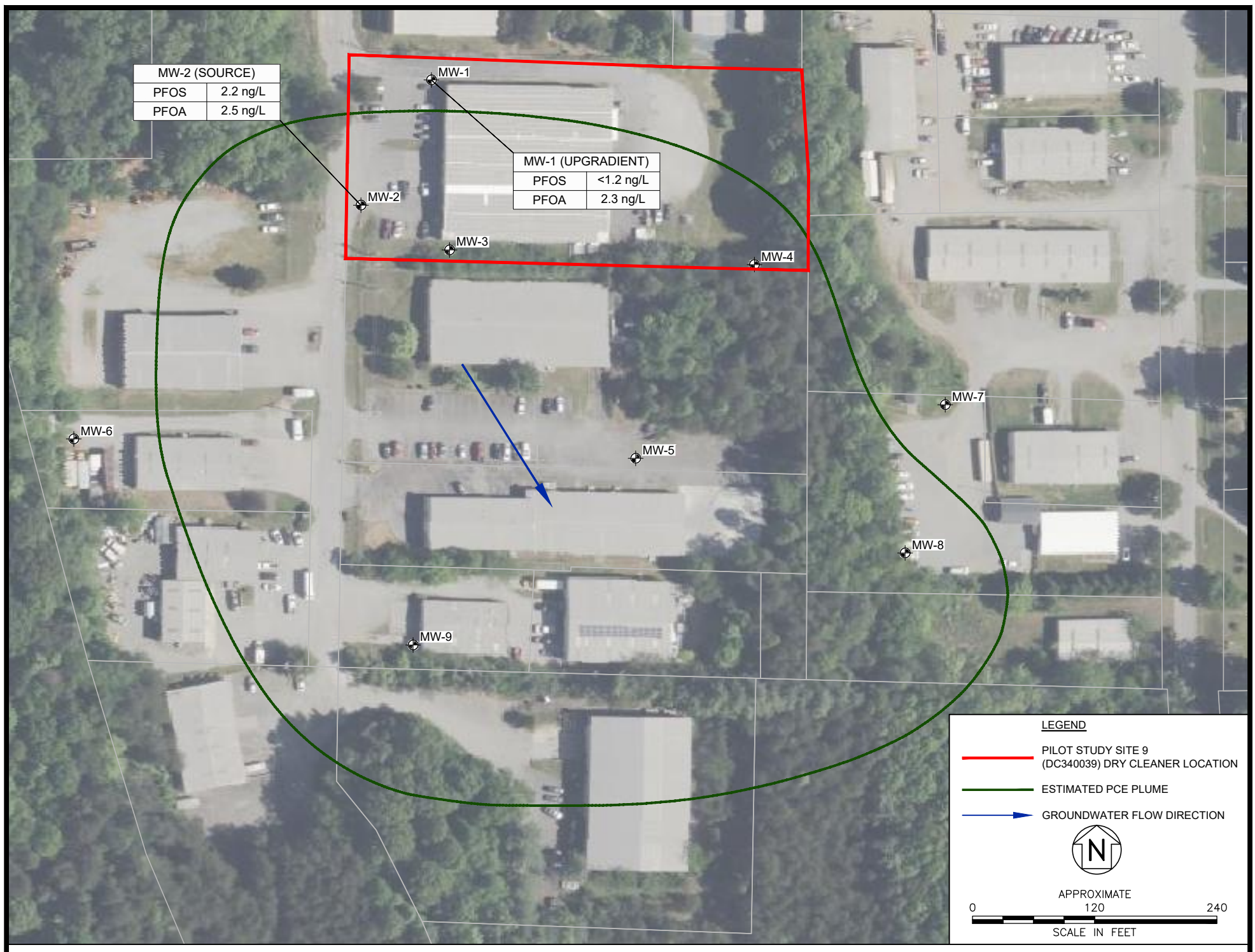
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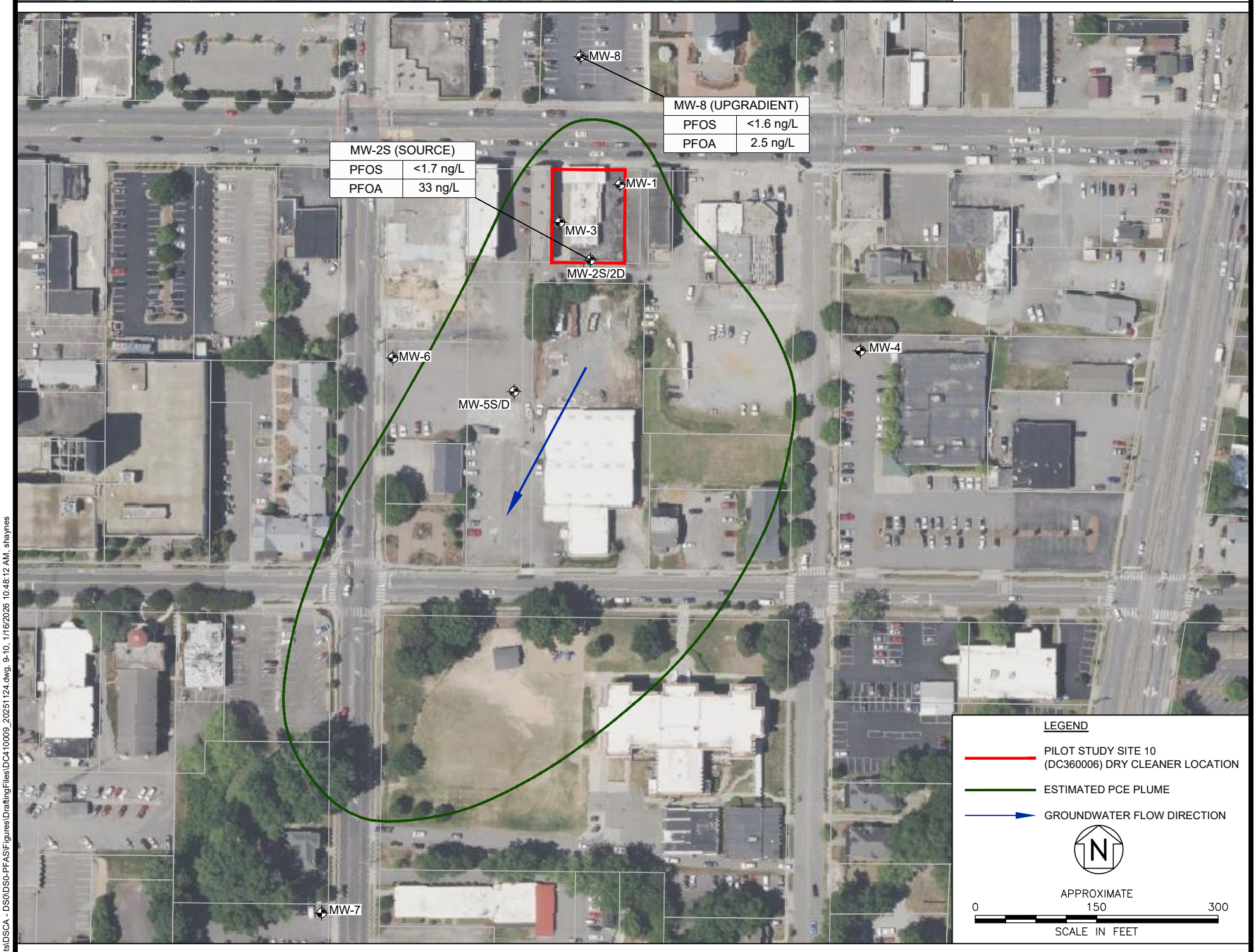
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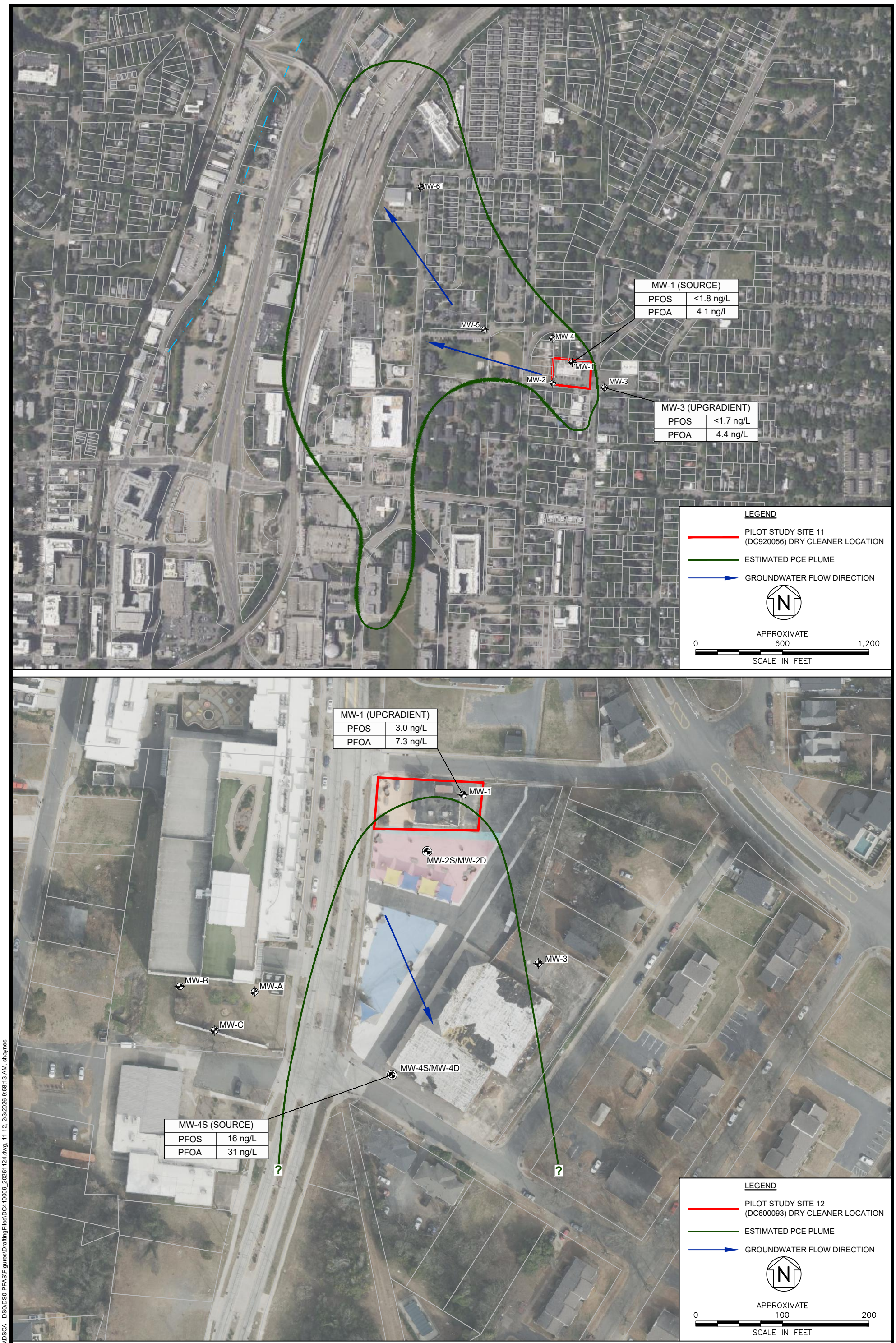
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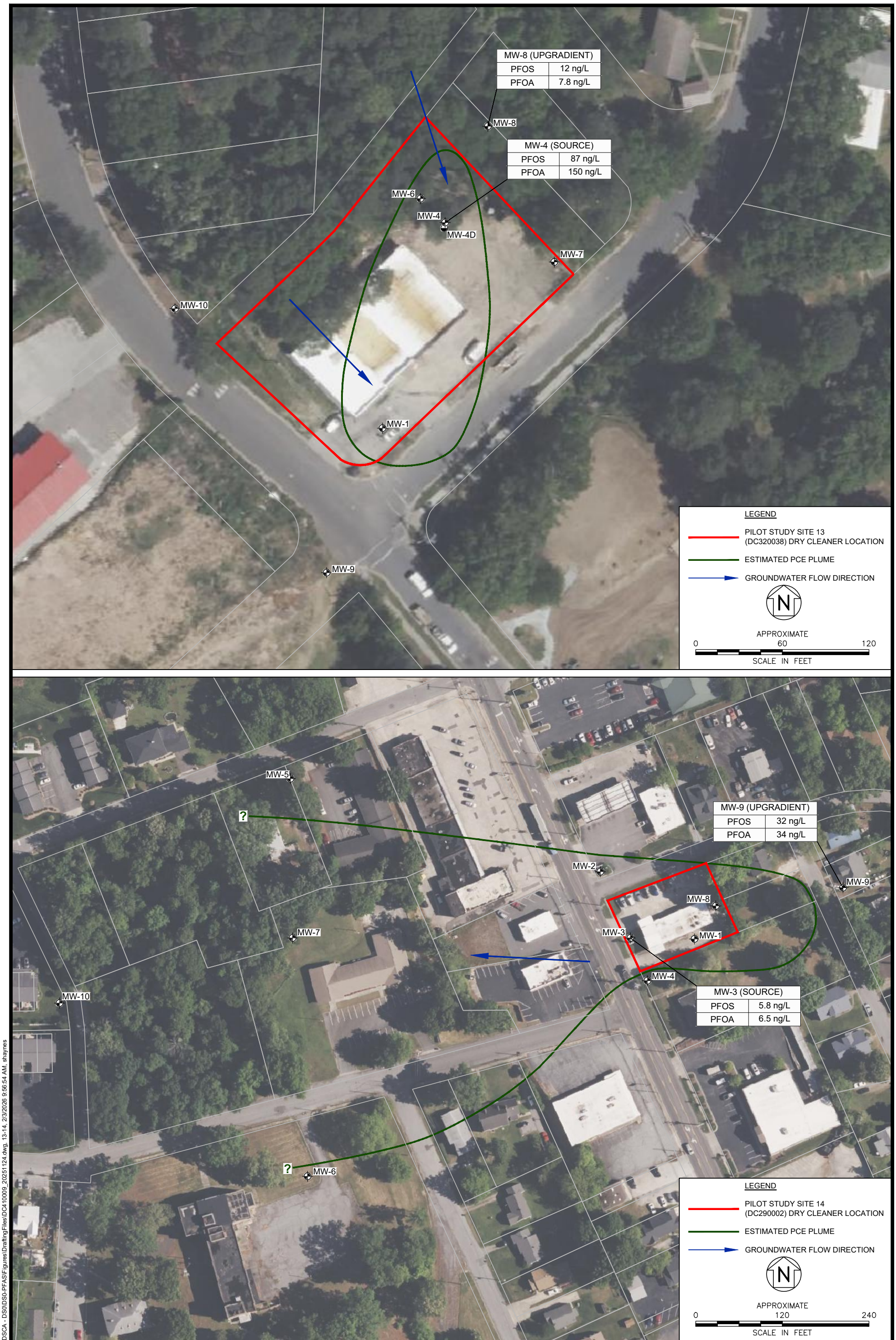
REFER TO TABLES AND LABORATORY ANALYTICAL REPORTS FOR DATA FLAGS ASSOCIATED WITH DETECTED CONCENTRATIONS.

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REFER TO TABLES AND LABORATORY ANALYTICAL REPORTS FOR DATA FLAGS ASSOCIATED WITH DETECTED CONCENTRATIONS.

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REFER TO TABLES AND LABORATORY ANALYTICAL REPORTS FOR DATA FLAGS ASSOCIATED WITH DETECTED CONCENTRATIONS.

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Appendix D
Groundwater Field Sampling Forms

hart hickman
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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-2
Date: 6/12/25

Site Name: $2.75 Cleaners (DC340005)
Site Location: Winston-Salem, North Carolina
Sampling Personnel JMS, NWS
Weather: Clear, 80s °F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 5 – 15
Top of Casing Elevation (ft msl): 791.93
Total Well Depth (ft TOC): 15.17
Depth to Water (ft TOC): 8.97
Pump/Tubing set at (ft): 10
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
14:45	8.97	1,000 mL	150 mL/min	2.41	29.6	351.7	5.49	-110.7	0.21
14:50	9.12	1,750 mL	150 mL/min	2.38	26.1	332.5	5.45	-104.3	0.24
14:55	9.16	2,500 mL	150 mL/min	2.51	25.6	324.5	5.48	-93.2	0.17
15:00	9.19	3,250 mL	150 mL/min	2.51	25.7	323.5	5.49	-96.4	0.10

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 15:00
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-1
Date: 6/12/25

Site Name: $2.75 Cleaners (DC340005)
Site Location: Winston-Salem, North Carolina
Sampling Personnel JMS, NWS
Weather: Clear, 80s °F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 5 – 15
Top of Casing Elevation (ft msl): 791.30
Total Well Depth (ft TOC): 15.80
Depth to Water (ft TOC): 7.01
Pump/Tubing set at (ft): 10
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
14:00	7.03	2,000 mL	150 mL/min	0.64	19.6	109.6	5.40	-110.0	15.6
14:05	7.05	2,750 mL	150 mL/min	0.98	19.3	101.8	5.41	-106.4	14.5
14:10	7.06	3,500 mL	150 mL/min	0.94	19.3	98.8	5.36	-94.5	14.3
14:15	7.07	4,250 mL	150 mL/min	0.80	19.4	98.4	5.39	-97.8	11.8

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 14:15
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-1S
Date: 6/24/25

Site Name: Carriage House Cleaners (DC920051)
Site Location: Garner, North Carolina
Sampling Personnel RES, NWS
Weather: Clear, 84°F
Casing Material: PVC
Well Diameter: 1 inch
Screen Interval (ft TOC): 15 – 25
Top of Casing Elevation (ft msl): 347.86
Total Well Depth (ft TOC): 25
Depth to Water (ft TOC): 14.92
Pump/Tubing set at (ft): 20
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
08:45	15.11	0 mL	100 mL/min	5.27	24.9	120.0	4.76	113.4	5.41
08:50	15.17	500 mL	100 mL/min	5.75	24.1	108.2	4.73	110.8	8.67
08:55	15.22	1,000 mL	100 mL/min	6.00	24.2	104.7	4.78	81.5	9.89
09:00	15.22	1,500 mL	100 mL/min	5.73	24.4	104.5	4.74	84.9	5.22
09:05	15.23	2,000 mL	100 mL/min	6.05	24.5	104.1	4.77	78.0	6.48
09:10	15.25	2,500 mL	100 mL/min	5.75	24.7	100.5	4.80	77.0	7.20

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 09:10
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-6S
Date: 6/24/25

Site Name: Carriage House Cleaners (DC920051)
Site Location: Garner, North Carolina
Sampling Personnel RES, NWS
Weather: Clear, 91°F
Casing Material: PVC
Well Diameter: 1 inch
Screen Interval (ft TOC): 13 – 23
Top of Casing Elevation (ft msl): 349.69
Total Well Depth (ft TOC): 23
Depth to Water (ft TOC): 19.09
Pump/Tubing set at (ft): 22
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
10:44	20.04	0 mL	100 mL/min	4.46	25.9	140.4	4.66	91.8	11.7
10:49	20.06	500 mL	100 mL/min	3.89	26.7	141.7	4.67	72.3	14.9
10:54	20.07	1,000 mL	100 mL/min	3.73	25.8	142.5	4.67	74.2	8.55
10:59	20.10	1,500 mL	100 mL/min	3.70	25.0	141.1	4.67	111.4	10.2
11:04	20.10	2,000 mL	100 mL/min	3.67	25.3	140.2	4.68	105.4	6.75

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 11:04
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-1
Date: 6/23/25

Site Name: Deluxe Cleaners (DC330005) Site Location: Tarboro, North Carolina
Sampling Personnel RES, NWS Weather: Clear, 90s °F
Casing Material: PVC Well Diameter: 1 inch Screen Interval (ft TOC): 5 – 15
Top of Casing Elevation (ft msl): 74.21 Total Well Depth (ft TOC): 15 Depth to Water (ft TOC): 4.44
Pump/Tubing set at (ft): 10 Type of Pump: Peristaltic Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
10:45	4.47	0 mL	100 mL/min	0.43	23.9	320.1	5.96	29.9	11.7
10:50	4.47	500 mL	100 mL/min	0.15	22.3	276.4	5.87	33.3	3.28
10:55	4.48	1,000 mL	100 mL/min	0.10	22.0	266.4	5.85	23.7	2.04
11:00	4.48	1,500 mL	100 mL/min	0.09	21.9	262.1	5.83	21.6	1.44
11:05	4.48	2,000 mL	100 mL/min	0.08	21.8	258.9	5.82	18.6	0.99

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 11:05 Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-6
Date: 6/23/25

Site Name: Deluxe Cleaners (DC330005) Site Location: Tarboro, North Carolina
Sampling Personnel RES, NWS Weather: Clear, 87°F
Casing Material: PVC Well Diameter: 2 inch Screen Interval (ft TOC): 5 – 15
Top of Casing Elevation (ft msl): 72.44 Total Well Depth (ft TOC): 15 Depth to Water (ft TOC): 2.88
Pump/Tubing set at (ft): 10 Type of Pump: Peristaltic Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
10:03	2.98	0 mL	100 mL/min	0.24	25.6	877	6.27	-64.9	4.09
10:08	3.02	500 mL	100 mL/min	0.14	25.1	878	6.28	-53.9	3.39
10:13	3.03	1,000 mL	100 mL/min	0.12	25.0	885	6.29	-49.6	2.96
10:18	3.03	1,500 mL	100 mL/min	0.10	24.8	887	6.29	-47.1	2.44
10:23	3.03	2,000 mL	100 mL/min	0.09	24.9	890	6.29	-44.1	2.34

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q Sample Condition (Clear, Cloudy, Other): Slight Brown Tint
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 10:23 Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-2RS
Date: 6/16/25

Site Name: Everhart Cleaners (DC410009)
Site Location: Greensboro, North Carolina
Sampling Personnel RES, NWS
Weather: Partly Cloudy, 82°F
Casing Material: PVC
Well Diameter: 1 inch
Screen Interval (ft TOC): 8 – 18
Top of Casing Elevation (ft msl): 786.97
Total Well Depth (ft TOC): 18
Depth to Water (ft TOC): 7.69
Pump/Tubing set at (ft): 13
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
11:56	8.13	0 mL	100 mL/min	5.33	23.1	537	6.84	104.1	6.29
12:01	8.24	500 mL	100 mL/min	5.77	21.9	529	6.85	102.3	6.31
12:06	8.29	1,000 mL	100 mL/min	5.53	22.6	527	6.83	97.9	2.76
12:11	8.33	1,500 mL	100 mL/min	5.59	22.8	531	6.83	94.5	1.94
12:16	8.47	2,000 mL	100 mL/min	5.44	22.7	532	6.81	97.8	0.90

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 12:16
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-15S
Date: 6/16/25

Site Name: Everhart Cleaners (DC410009)
Site Location: Greensboro, North Carolina
Sampling Personnel RES, NWS
Weather: Cloudy, 76°F
Casing Material: PVC
Well Diameter: 1 inch
Screen Interval (ft TOC): 10 – 25
Top of Casing Elevation (ft msl): 782.78
Total Well Depth (ft TOC): 25
Depth to Water (ft TOC): 4.18
Pump/Tubing set at (ft): 17
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
09:48	4.21	0 mL	100 mL/min	1.74	22.9	191.0	6.15	59.7	174
09:53	4.24	500 mL	100 mL/min	0.39	22.2	176.8	6.17	64.4	122
09:58	4.27	1,000 mL	100 mL/min	0.46	21.9	176.2	6.19	67.3	64.8
10:03	4.28	1,500 mL	100 mL/min	0.55	21.5	174.8	6.20	57.1	47.6
10:08	4.28	2,000 mL	100 mL/min	0.63	21.7	175.7	6.20	56.9	41.0
10:13	4.28	2,500 mL	100 mL/min	0.67	21.7	176.0	6.20	53.9	29.4
10:18	4.27	3,000 mL	100 mL/min	0.67	21.5	175.1	6.20	55.3	26.4
10:23	4.27	3,500 mL	100 mL/min	0.63	21.6	175.0	6.20	56.3	21.8
10:28	4.27	4,000 mL	100 mL/min	0.59	21.6	175.4	6.20	53.6	20.8
10:33	4.27	4,500 mL	100 mL/min	0.70	21.6	176.3	6.20	57.0	12.9
10:38	4.28	5,000 mL	100 mL/min	0.72	21.6	175.7	6.20	55.9	11.4
10:43	4.28	5,500 mL	100 mL/min	0.64	21.8	176.3	6.20	60.3	9.06

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 10:43
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-2
Date: 6/26/25

Site Name: Fabric Care Center (DC740014)
Site Location: Greenville, North Carolina
Sampling Personnel RES, NWS
Weather: Clear, 85°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 9 – 19
Top of Casing Elevation (ft msl): 72.18
Total Well Depth (ft TOC): 19
Depth to Water (ft TOC): 17.57
Pump/Tubing set at (ft): 18.5
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
10:18	17.69	0 mL	100 mL/min	3.55	25.6	138.9	4.34	83.4	7.14
10:23	17.71	500 mL	100 mL/min	3.93	24.9	133.2	4.36	61.9	3.26
10:28	17.71	1,000 mL	100 mL/min	3.03	24.8	131.1	4.36	67.4	2.40
10:33	17.72	1,500 mL	100 mL/min	3.46	24.9	130.1	4.36	64.2	1.77
10:38	17.72	2,000 mL	100 mL/min	3.87	24.9	130.0	4.36	68.2	1.10
10:43	17.73	2,500 mL	100 mL/min	3.60	24.8	128.7	4.36	63.5	0.55
10:48	17.73	3,000 mL	100 mL/min	3.53	24.5	127.9	4.37	73.6	0.52
10:53	17.73	3,500 mL	100 mL/min	3.61	24.6	127.1	4.37	67.6	0.42

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 10:53
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
- pH: +/- 0.1 SU
- Specific Conductivity: +/- 5%
- Turbidity: <10 NTUs or stabilized
- Water Level: slight and stable drawdown (<0.33 ft)
- Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-4
Date: 6/26/25

Site Name: Fabric Care Center (DC740014)
Site Location: Greenville, North Carolina
Sampling Personnel RES, NWS
Weather: Clear, 82°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 10 – 20
Top of Casing Elevation (ft msl): 71.69
Total Well Depth (ft TOC): 20
Depth to Water (ft TOC): 14.67
Pump/Tubing set at (ft): 17
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
09:17	14.69	0 mL	100 mL/min	2.82	24.4	73.8	4.50	69.5	2.37
09:22	14.69	500 mL	100 mL/min	3.00	24.6	71.2	4.55	65.5	3.83
09:27	14.69	1,000 mL	100 mL/min	3.03	24.2	71.7	4.52	60.7	4.73
09:32	14.69	1,500 mL	100 mL/min	2.55	23.3	73.0	4.51	56.3	2.50
09:37	14.70	2,000 mL	100 mL/min	2.90	23.2	73.4	4.51	53.1	1.27
09:42	14.70	2,500 mL	100 mL/min	2.85	22.7	73.8	4.50	48.1	0.74
09:47	14.71	3,000 mL	100 mL/min	3.05	22.8	73.7	4.50	47.3	0.66

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 09:47
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-1
Date: 7/2/25

Site Name: NS Farrington (DC340039)
Site Location: Winston-Salem, North Carolina
Sampling Personnel JMS, GRD
Weather: Rain, 72°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 9 – 19
Top of Casing Elevation (ft msl): 927.70
Total Well Depth (ft TOC): 19
Depth to Water (ft TOC): 10.91
Pump/Tubing set at (ft): 15
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
10:00	10.94	500 mL	100 mL/min	4.92	22.0	190.8	4.85	132.6	3.23
10:05	10.95	1,000 mL	100 mL/min	3.65	21.5	127.7	4.84	138.1	1.29
10:10	10.96	1,500 mL	100 mL/min	3.49	21.6	127.5	4.86	140.1	0.45
10:15	10.96	2,000 mL	100 mL/min	3.62	21.6	129.8	4.86	143.7	0.97
10:20	10.97	2,500 mL	100 mL/min	4.07	21.4	97.6	4.86	144.7	0.72
10:25	10.98	3,000 mL	100 mL/min	3.95	21.4	97.8	4.87	145.5	0.22
10:30	11.00	3,500 mL	100 mL/min	3.89	21.5	93.9	4.88	145.9	0.50

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 10:30
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
- pH: +/- 0.1 SU
- Specific Conductivity: +/- 5%
- Turbidity: <10 NTUs or stabilized
- Water Level: slight and stable drawdown (<0.33 ft)
- Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-2
Date: 7/2/25

Site Name: NS Farrington (DC340039)
Site Location: Winston-Salem, North Carolina
Sampling Personnel JMS, GRD
Weather: Cloudy, 74°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 7 – 22
Top of Casing Elevation (ft msl): 923.14
Total Well Depth (ft TOC): 22
Depth to Water (ft TOC): 9.96
Pump/Tubing set at (ft): 16
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
10:50	10.02	500 mL	100 mL/min	4.63	22.6	93.7	5.04	140.8	221
10:55	10.08	1,000 mL	100 mL/min	3.21	21.4	89.3	4.97	147.5	188
11:00	10.09	1,500 mL	100 mL/min	3.25	22.1	90.6	5.05	146.1	54.9
11:05	10.09	2,000 mL	100 mL/min	3.22	23.2	93.4	5.07	146.6	32.7
11:10	10.09	2,500 mL	100 mL/min	3.17	23.1	90.9	5.06	148.8	12.6
11:15	10.10	3,000 mL	100 mL/min	3.31	23.4	92.7	5.06	148.3	9.98

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 11:15
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-7
Date: 6/26/25

Site Name: Ferree Cleaners (DC120001)
Site Location: Morganton, North Carolina
Sampling Personnel JMS, EJZ
Weather: Clear, 80s °F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 5 – 15
Top of Casing Elevation (ft msl): 1117.66
Total Well Depth (ft TOC): 15
Depth to Water (ft TOC): 8.01
Pump/Tubing set at (ft): 13
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
10:35	8.21	1,000 mL	150 mL/min	3.74	22.0	234.1	5.73	68.8	1.45
10:40	8.27	1,750 mL	150 mL/min	3.61	22.3	222.6	5.82	67.0	1.92
10:45	8.34	2,500 mL	150 mL/min	3.63	22.4	222.2	5.76	66.0	1.73
10:50	8.39	3,250 mL	150 mL/min	3.65	22.5	222.2	5.79	66.1	1.13

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 10:50
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-10
Date: 6/26/25

Site Name: Ferree Cleaners (DC120001)
Site Location: Morganton, North Carolina
Sampling Personnel JMS, EJZ
Weather: Clear, 80s °F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 3 – 9
Top of Casing Elevation (ft msl): 1120.53
Total Well Depth (ft TOC): 9
Depth to Water (ft TOC): 6.42
Pump/Tubing set at (ft): 7.5
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
11:20	6.50	1,000 mL	150 mL/min	1.10	25.8	80.2	6.16	80.4	14.2
11:25	6.57	1,750 mL	150 mL/min	0.67	26.1	79.9	6.18	55.0	6.07
11:30	6.65	2,500 mL	150 mL/min	0.59	25.8	79.4	6.21	58.0	4.17
11:35	6.70	3,250 mL	150 mL/min	0.54	25.8	79.6	6.22	58.7	3.64

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 11:35
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-1
Date: 6/25/25

Site Name: Hollywood Cleaners (DC320014)
Site Location: Durham, North Carolina
Sampling Personnel RES, NWS
Weather: Partly Cloudy, 86°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 40 – 50
Top of Casing Elevation (ft msl): 359.45
Total Well Depth (ft TOC): 50
Depth to Water (ft TOC): 34.95
Pump/Tubing set at (ft): 45
Type of Pump: Bladder Pump (silicon bladder)
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
08:47	35.10	0 mL	50 mL/min	2.66	23.8	404.5	6.59	-43.2	95.4
08:52	35.20	250 mL	100 mL/min	1.58	21.1	411.1	6.59	-67.7	62.8
08:57	35.21	750 mL	100 mL/min	1.51	21.0	411.1	6.59	-71.1	33.7
09:02	35.19	1,250 mL	100 mL/min	1.52	21.0	410.9	6.58	-72.5	26.0
09:07	35.21	1,750 mL	100 mL/min	1.53	20.8	410.7	6.59	-74.3	15.4
09:12	35.19	2,250 mL	100 mL/min	1.54	20.9	410.9	6.58	-75.6	16.0
09:17	35.21	2,750 mL	100 mL/min	1.55	21.4	411.8	6.59	-74.4	8.05

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 09:17
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-10
Date: 6/25/25

Site Name: Hollywood Cleaners (DC320014)
Site Location: Durham, North Carolina
Sampling Personnel RES, NWS
Weather: Partly Cloudy, 89°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 25 – 40
Top of Casing Elevation (ft msl): 331.59
Total Well Depth (ft TOC): 40
Depth to Water (ft TOC): 15.58
Pump/Tubing set at (ft): 34
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
09:52	16.10	0 mL	100 mL/min	0.74	23.3	513	6.28	-71.9	8.49
09:57	16.49	500 mL	100 mL/min	0.27	23.2	511	6.30	-92.5	0.88
10:02	16.95	1,000 mL	100 mL/min	0.25	23.8	508	6.30	-97.5	1.01
10:07	17.49	1,500 mL	100 mL/min	0.20	23.6	507	6.29	-100.8	0.88
10:12	18.01	2,000 mL	100 mL/min	0.20	23.8	508	6.30	-106.2	2.56
10:17	18.59	2,300 mL	60 mL/min	0.16	23.6	505	6.30	-110.1	3.04
10:22	18.87	2,600 mL	60 mL/min	0.15	23.9	504	6.30	-109.1	2.24
10:27	19.32	2,900 mL	60 mL/min	0.15	23.9	508	6.29	-110.8	2.21
10:32	19.77	3,200 mL	60 mL/min	0.14	23.6	506	6.29	-111.1	2.38
10:37	20.09	3,500 mL	60 mL/min	0.14	23.8	507	6.29	-108.5	2.93
10:42	20.49	3,800 mL	60 mL/min	0.14	23.3	506	6.30	-111.8	1.54
10:47	20.96	4,100 mL	60 mL/min	0.12	23.6	506	6.30	-111.8	1.86
10:52	21.31	4,400 mL	60 mL/min	0.15	24.3	504	6.30	-106.1	1.22

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 10:52
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-1
Date: 6/24/25

Site Name: Iredell Laundry (DC490007)
Site Location: Statesville, North Carolina
Sampling Personnel GRD, JMS
Weather: Clear, 94°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 25 – 45
Top of Casing Elevation (ft msl): 897.87
Total Well Depth (ft TOC): 45
Depth to Water (ft TOC): 30.45
Pump/Tubing set at (ft): 36
Type of Pump: Bladder Pump (silicon bladder)
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
13:55	30.52	750 mL	150 mL/min	4.84	23.8	140.7	5.58	-50.5	589
14:00	30.55	1,500 mL	150 mL/min	4.74	23.3	138.3	5.59	-50.9	786
14:05	30.61	2,250 mL	150 mL/min	4.64	23.2	137.9	5.60	-45.7	708
14:10	30.68	3,000 mL	150 mL/min	4.61	23.2	138.2	5.61	-7.4	638
14:15	30.75	3,750 mL	150 mL/min	4.59	23.0	137.8	5.62	-22.0	618
14:25	30.80	4,125 mL	75 mL/min	4.53	23.2	139.4	5.64	-25.8	629
14:35	30.81	5,375 mL	50 mL/min	4.59	23.2	139.2	5.64	-25.9	224
14:45	30.81	5,625 mL	50 mL/min	4.61	23.1	140.1	5.64	-25.9	164
14:55	30.81	5,875 mL	50 mL/min	4.62	23.1	141.0	5.63	-25.9	127
15:05	30.82	6,125 mL	50 mL/min	4.63	23.1	140.6	5.63	-25.9	61.9
15:15	30.82	6,375 mL	50 mL/min	4.64	23.1	142.4	5.63	-26.7	38.1
15:20	30.82	6,625 mL	50 mL/min	4.64	23.1	141.9	5.63	-26.2	36.6
15:25	30.83	6,875 mL	50 mL/min	4.62	23.1	141.6	5.63	-25.5	30.6

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Cloudy
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 15:25
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-3
Date: 6/24/25

Site Name: Iredell Laundry (DC490007)
Site Location: Statesville, North Carolina
Sampling Personnel GRD, JMS
Weather: Clear, 89°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 24 – 34
Top of Casing Elevation (ft msl): 908.07
Total Well Depth (ft TOC): 34
Depth to Water (ft TOC): 28.30
Pump/Tubing set at (ft): 32
Type of Pump: Bladder Pump (silicon bladder)
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
11:45	28.32	750 mL	150 mL/min	6.24	22.6	138.8	4.92	-60.7	1,000
11:50	28.46	1,500 mL	150 mL/min	6.07	22.3	146.4	4.94	-59.2	1,000
11:55	28.63	2,250 mL	150 mL/min	5.99	21.5	166.6	4.85	-54.7	419
12:00	28.76	3,000 mL	150 mL/min	5.97	21.9	186.2	4.79	-51.9	136
12:05	28.82	3,750 mL	150 mL/min	5.92	21.7	183.5	4.77	-50.2	73.7
12:10	28.84	4,500 mL	150 mL/min	5.87	22.6	179.2	4.79	-44.2	64.5
12:15	28.88	5,250 mL	150 mL/min	5.82	21.7	170.7	4.80	-46.1	80.1
12:20	28.86	6,000 mL	150 mL/min	5.79	22.9	165.2	4.80	-48.3	59.6
12:25	28.84	6,750 mL	150 mL/min	5.73	24.3	165.5	4.80	-47.3	58.2
12:30	28.83	7,500 mL	150 mL/min	5.64	23.5	163.8	4.82	-47.2	45.3
12:35	28.79	8,250 mL	150 mL/min	5.64	23.4	160.1	4.82	-46.0	38.9
12:40	28.73	9,000 mL	150 mL/min	5.57	24.6	158.7	4.83	-45.4	32.8
12:45	28.69	9,750 mL	150 mL/min	5.51	24.4	155.5	4.82	-43.6	31.1

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 13:15
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-3
Date: 6/24/25

Site Name: Iredell Laundry (DC490007)
Site Location: Statesville, North Carolina
Sampling Personnel GRD, JMS
Weather: Clear, 89°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 24 – 34
Top of Casing Elevation (ft msl): 908.07
Total Well Depth (ft TOC): 34
Depth to Water (ft TOC): 28.30
Pump/Tubing set at (ft): 32
Type of Pump: Bladder Pump (silicon bladder)
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
12:50	28.65	10,500 mL	150 mL/min	5.49	24.2	154.5	4.83	-42.8	32.4
12:55	28.63	11,250 mL	150 mL/min	5.43	24.3	152.3	4.83	-42.3	37.8
13:00	28.64	12,000 mL	150 mL/min	5.40	23.9	154.2	4.82	-39.8	25.2
13:05	28.62	12,750 mL	150 mL/min	5.38	25.6	154.7	4.82	-36.1	24.4
13:10	28.60	13,500 mL	150 mL/min	5.34	25.0	155.7	4.82	-32.7	30.2
13:15	28.61	14,250 mL	150 mL/min	5.30	26.2	156.4	4.81	-31.0	30.1

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 13:15
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-2S
Date: 6/18/25

Site Name: One Hour Martinizing (DC360006)
Site Location: Gastonia, North Carolina
Sampling Personnel JMS, GRD
Weather: Clear, 80s °F
Casing Material: PVC
Well Diameter: 1 inch
Screen Interval (ft TOC): 15 – 35
Top of Casing Elevation (ft msl): 809.47
Total Well Depth (ft TOC): 35
Depth to Water (ft TOC): 24.27
Pump/Tubing set at (ft): 30
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
12:30	24.37	500 mL	100 mL/min	3.66	24.4	606	4.61	233.9	12.3
12:35	24.43	1,000 mL	100 mL/min	3.27	24.4	602	4.68	223.4	11.8
12:40	24.47	1,500 mL	100 mL/min	3.23	24.5	599	4.76	215.8	7.00
12:45	24.48	2,000 mL	100 mL/min	3.14	24.4	599	4.81	208.0	2.95

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 12:45
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-8
Date: 6/18/25

Site Name: One Hour Martinizing (DC360006)
Site Location: Gastonia, North Carolina
Sampling Personnel GRD, JMS
Weather: Clear, 80s °F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 24 – 39
Top of Casing Elevation (ft msl): 812.91
Total Well Depth (ft TOC): 39
Depth to Water (ft TOC): 26.02
Pump/Tubing set at (ft): 30
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
11:25	26.08	500 mL	100 mL/min	4.33	29.0	352.7	4.18	239.8	0.64
11:30	26.09	1,000 mL	100 mL/min	4.35	30.3	351.2	4.24	263.6	0.45
11:35	26.11	1,500 mL	100 mL/min	4.29	30.5	351.0	4.25	266.4	0.31
11:40	26.16	2,000 mL	100 mL/min	4.42	30.1	344.8	4.22	269.3	0.25
11:45	26.20	2,500 mL	100 mL/min	4.34	30.0	341.4	4.22	270.1	0.60

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 11:45
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-1
Date: 6/24/25

Site Name: Reaves Spic & Span (DC920056)
Site Location: Raleigh, North Carolina
Sampling Personnel RES, NWS
Weather: Clear, 97°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 25 – 40
Top of Casing Elevation (ft msl): 327.67
Total Well Depth (ft TOC): 40
Depth to Water (ft TOC): 810
Pump/Tubing set at (ft): 35
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected. Turbidity meter malfunctioned, continued purging until new turbidity meter arrived at 15:05.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
14:05	30.25	500 mL	100 mL/min	2.64	25.4	818	6.64	59.5	
14:10	30.28	1,000 mL	100 mL/min	2.50	25.7	816	6.64	56.6	
14:15	30.30	1,500 mL	100 mL/min	2.55	25.7	820	6.63	56.3	
14:20	30.31	2,000 mL	100 mL/min	2.60	24.9	820	6.64	53.6	
14:25	30.32	2,500 mL	100 mL/min	2.43	25.3	820	6.63	54.7	
14:30	30.32	3,000 mL	100 mL/min	2.44	25.1	822	6.63	56.1	
14:35	30.33	3,500 mL	100 mL/min	2.61	24.9	821	6.63	58.8	
14:40	30.34	4,000 mL	100 mL/min	2.69	24.5	821	6.64	55.4	
14:45	30.34	4,500 mL	100 mL/min	2.67	24.9	820	6.64	54.7	
14:50	30.34	5,000 mL	100 mL/min	2.71	24.8	819	6.63	55.2	
14:55	30.32	5,500 mL	100 mL/min	2.81	24.7	810	6.62	59.7	
15:00	30.33	6,000 mL	100 mL/min	2.77	25.1	816	6.63	55.5	
15:05	30.35	6,500 mL	100 mL/min	2.63	25.3	831	6.64	53.8	3.66

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 15:05
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-3
Date: 6/24/25

Site Name: Reaves Spic & Span (DC920056)
Site Location: Raleigh, North Carolina
Sampling Personnel RES, NWS
Weather: Clear, 97°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 21 – 36
Top of Casing Elevation (ft msl): 328.08
Total Well Depth (ft TOC): 36
Depth to Water (ft TOC): 27.70
Pump/Tubing set at (ft): 33
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
12:48	27.74	0 mL	100 mL/min	0.44	27.6	738	6.37	58.5	11.8
12:53	27.74	500 mL	100 mL/min	0.20	24.9	733	6.40	67.9	3.37
12:58	27.74	1,000 mL	100 mL/min	0.18	24.9	727	6.41	67.4	1.87
13:03	27.74	1,500 mL	100 mL/min	0.13	24.8	735	6.41	82.0	0.72
13:08	27.74	2,000 mL	100 mL/min	0.13	24.6	737	6.41	70.1	0.44

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 13:08
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-1
Date: 6/30/25

Site Name: Wash Zone (DC600093)
Site Location: Charlotte, North Carolina
Sampling Personnel JMS, GRD
Weather: Clear, 75°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 10 – 25
Top of Casing Elevation (ft msl): 715.27
Total Well Depth (ft TOC): 25
Depth to Water (ft TOC): 14.02
Pump/Tubing set at (ft): 20
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
09:25	14.06	500 mL	100 mL/min	4.00	23.4	172.1	5.47	162.4	4.71
09:30	14.09	1,000 mL	100 mL/min	3.87	23.3	145.2	5.50	222.8	1.89
09:35	14.12	1,500 mL	100 mL/min	3.88	23.3	144.9	5.39	225.8	2.99
09:40	14.15	2,000 mL	100 mL/min	3.82	23.0	144.6	5.37	232.1	2.18
09:45	14.17	2,500 mL	100 mL/min	3.84	23.0	144.9	5.35	233.7	2.06

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 09:45
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-4S
Date: 6/30/25

Site Name: Wash Zone (DC600093)
Site Location: Charlotte, North Carolina
Sampling Personnel JMS, GRD
Weather: Clear, 87°F
Casing Material: PVC
Well Diameter: 1 inch
Screen Interval (ft TOC): 25 – 40
Top of Casing Elevation (ft msl): 706.93
Total Well Depth (ft TOC): 40
Depth to Water (ft TOC): 28.92
Pump/Tubing set at (ft): 35
Type of Pump: Bladder Pump (silicon bladder)
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
11:00	29.11	500 mL	50 mL/min	4.33	26.9	305.2	5.82	207.5	448
11:05	29.16	750 mL	50 mL/min	3.85	27.8	311.3	5.83	194.1	692
11:20	29.17	1,500 mL	50 mL/min	3.22	25.7	284.6	5.77	178.4	698
11:40	29.20	2,500 mL	50 mL/min	3.05	25.9	275.5	5.74	183.6	158
12:00	29.21	3,500 mL	50 mL/min	3.14	26.4	273.8	5.77	177.1	61.6
12:15	29.21	4,250 mL	50 mL/min	3.33	26.2	277.5	5.83	173.8	115
12:30	29.21	5,000 mL	50 mL/min	3.44	26.9	275.9	5.84	172.1	43.0
12:35	29.21	5,250 mL	50 mL/min	3.47	26.2	277.5	5.84	170.9	40.5
12:40	29.21	5,500 mL	50 mL/min	3.51	26.0	276.1	5.85	171.9	35.1

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 12:40
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-4
Date: 6/19/25

Site Name: White Star Laundry (DC320038)
Site Location: Durham, North Carolina
Sampling Personnel RES, NWS
Weather: Clear, 85°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 5 – 15
Top of Casing Elevation (ft msl): 326.08
Total Well Depth (ft TOC): 15
Depth to Water (ft TOC): 6.93
Pump/Tubing set at (ft): 11
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
09:32	7.16	0 mL	100 mL/min	1.55	22.7	934	6.57	41.9	2.76
09:37	7.40	500 mL	100 mL/min	1.07	22.3	920	6.58	92.3	1.96
09:42	7.64	1,000 mL	100 mL/min	1.13	22.9	916	6.57	30.3	1.87
09:47	7.82	1,500 mL	100 mL/min	1.10	23.4	915	6.56	27.8	2.05
09:52	7.98	2,000 mL	100 mL/min	1.24	23.9	919	6.56	23.7	4.06
09:57	8.15	2,500 mL	100 mL/min	1.16	23.4	924	6.55	20.1	1.80

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 09:57
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

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LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-8
Date: 6/19/25

Site Name: White Star Laundry (DC320038)
Site Location: Durham, North Carolina
Sampling Personnel RES, NWS
Weather: Clear, 81°F
Casing Material: PVC
Well Diameter: 2 inch
Screen Interval (ft TOC): 3 – 13
Top of Casing Elevation (ft msl): 325.63
Total Well Depth (ft TOC): 13
Depth to Water (ft TOC): 4.53
Pump/Tubing set at (ft): 9
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
08:50	4.61	0 mL	150 mL/min	1.64	19.5	1,008	6.63	21.4	7.59
08:55	4.79	750 mL	100 mL/min	0.49	19.2	997	6.67	13.3	6.35
09:00	4.84	1,250 mL	100 mL/min	0.49	20.0	996	6.67	12.8	5.57
09:05	4.90	1,750 mL	100 mL/min	0.47	20.0	1,005	6.66	12.2	5.52
09:10	4.95	2,250 mL	100 mL/min	0.52	20.2	1,010	6.66	8.2	6.35

Other Field Parameters: N/A
Parameters taken with: YSI Pro Quatro, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 09:10
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS

LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-3
Date: 6/16/25

Site Name: Young's Cleaners (DC290002)
Site Location: Thomasville, North Carolina
Sampling Personnel GRD, JMS
Weather: Clear, 85°F
Casing Material: PVC
Well Diameter: 1 inch
Screen Interval (ft TOC): 10 – 20
Top of Casing Elevation (ft msl): 98.66
Total Well Depth (ft TOC): 20
Depth to Water (ft TOC): 4.04
Pump/Tubing set at (ft): 15
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES: Duplicate sample collected.

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
13:30	6.42	500 mL	100 mL/min	1.50	23.0	93.1	4.95	92.4	24.0
13:35	7.08	750 mL	50 mL/min	1.64	25.0	92.3	5.31	75.2	20.4
13:40	7.62	1,000 mL	50 mL/min	1.50	27.1	92.4	5.38	63.8	17.8
13:45	8.05	1,250 mL	50 mL/min	1.05	28.2	92.9	5.36	59.1	18.4
13:50	8.24	1,500 mL	50 mL/min	1.15	29.1	92.7	5.37	55.9	16.1
13:55	8.34	1,750 mL	50 mL/min	1.20	29.2	92.6	5.36	58.4	15.2

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 13:55
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS

LOW-FLOW GROUNDWATER SAMPLING RECORD

Generalized Stabilization Criteria (1)
pH: +/- 0.1 SU
Specific Conductivity: +/- 5%
Turbidity: <10 NTUs or stabilized
Water Level: slight and stable drawdown (<0.33 ft)
Dissolved Oxygen: +/- 0.2 mg/L

Job No: DS0-PFAS
Well ID: MW-9
Date: 6/16/25

Site Name: Young's Cleaners (DC290002)
Site Location: Thomasville, North Carolina
Sampling Personnel GRD, JMS
Weather: Clear, 85°F
Casing Material: PVC
Well Diameter: 1 inch
Screen Interval (ft TOC): 18 – 28
Top of Casing Elevation (ft msl): 110.15
Total Well Depth (ft TOC): 28
Depth to Water (ft TOC): 12.21
Pump/Tubing set at (ft): 23
Type of Pump: Peristaltic
Tubing Material: High Density Polyethylene
NOTES:

GROUNDWATER FIELD PARAMETERS

Time	Water Level	Volume Purged	Purging Rate	DO (mg/L)	Temp. (°C)	S. Cond. (µS/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)
11:50	13.21	1,000 mL	150 mL/min	1.81	21.0	93.0	4.83	63.0	8.78
11:55	13.62	1,750 mL	100 mL/min	1.48	20.2	90.6	4.99	58.2	4.73
12:00	13.75	2,250 mL	100 mL/min	1.57	22.4	87.9	5.29	35.2	5.68
12:05	13.81	3,750 mL	100 mL/min	1.54	21.9	88.4	5.24	19.1	5.36

Other Field Parameters: N/A
Parameters taken with: YSI Pro Plus, HACH 2100Q
Sample Condition (Clear, Cloudy, Other): Clear
Field Filtration: Yes ○ No ◉ If yes, which sample parameters were field filtered: N/A
Sampled at: 12:05
Sample Delivered to: Eurofins
Analytical Parameters and Containers (Types, Number of Containers, Preservatives): 2 x 125 mL plastic bottles (unpreserved; EPA Method 1633), 1 x 125 mL plastic bottle (unpreserved; EPA Method 1633 TOP)

(1) Stabilization criteria guidelines from the EPA Region 4 LSASD Operating Procedure for Groundwater Sampling (April 26, 2017). Stabilization occurs when parameters are stable for three consecutive readings measured at approximately five minute intervals. The above stabilization criteria may vary based on regulatory program and/or site conditions. Check with Project Manager for site-specific requirements. Turbidity values <10 NTUs may be required for select analyses (e.g., metals). If stabilization criteria is not attainable, contact Project Manager.

Appendix E
Laboratory Analytical Reports

$2.75 CLEANERS (KLEAN RITE)

DC340005

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

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JOB DESCRIPTION

$2.75 Cleaners (DC340005)

JOB NUMBER

410-227544-2

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

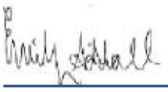
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Revision 2

Authorized for release by
Emily Siddall, Principal Project Manager
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Designee for
David Barnhart, Senior Project Manager
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Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-227544-2
Project/Site: $2.75 Cleaners (DC340005)

Qualifiers

LCMS

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-227544-2

REVISION

The report being provided is a revision of the original report sent on 7/15/2025. The report (revision 2) is being revised due to additional changes needed for the DS0.PFAS lab reports and EDDs.

Report revision history
Revision 1 - 12/9/2025 - Reason - additional changes needed for the DS0.PFAS lab reports and EDDs.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 6/14/2025 10:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C.

Receipt Exceptions
received 3 of sample DC340005-DUP 1, COC states 2

DC340005-SS (410-227544-1), DC340005-WW-PRE (410-227544-2), DC340005-WW-POST (410-227544-3), DC340005-MIST-PRE (410-227544-4), DC340005-MIST-POST (410-227544-5), DC340005-SPOT (410-227544-6), DC340005-SPOT-2 (410-227544-7), DC340005-DET (410-227544-8), DC340005-DET-2 (410-227544-9), DC340005-DET-3 (410-227544-10), DC340005-WW-BASIN (410-227544-11), DC340005-MW-1 (410-227544-12), DC340005-MW-2 (410-227544-13), DC340005-DUP-1 (410-227544-14), DC340005-DUP-2 (410-227544-15), DC340005-EB (410-227544-16) and DC340005-FB (410-227544-17)

PFAS
Method 1633A: The recovery for the target analytes: 3-Perfluoropentylpropanoic acid (5:3 FTCA) in the laboratory control spike samples associated with the following samples: DC340005-MW-1 (410-227544-12), DC340005-MW-2 (410-227544-13), DC340005-DUP-1 (410-227544-14), DC340005-EB (410-227544-16) and DC340005-FB (410-227544-17) is outside the QC acceptance limits. Since this target was outside specification by less than 10%, the laboratory control spike is within the QC acceptance limit, and the analyte is not detected in samples, the data is reported.

Method 1633A: The transition mass ratio for Perfluorooctanesulfonic acid (PFOS) in sample DC340005-MW-1 (410-227544-12) in analytical batch 410-664775 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Client Sample ID: DC340005-MW-1 — Lab Sample ID: 410-227544-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	17		9.9	3.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanoic acid (PFHxA)	23		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	43		9.9	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	42		9.9	4.4	ng/L	1		1633 TOPS	Post-Treatment
Perfluorononanoic acid (PFNA)	15		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	6.2	J	9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanesulfonic acid (PFHxS)	8.9	J	9.9	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	15		9.9	6.4	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanoic acid (PFBA)	1.6	J	3.1	0.86	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	1.7		1.6	0.47	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	2.8		1.6	0.39	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.8		1.6	0.63	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	6.5		1.6	0.71	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	0.57	J	1.6	0.39	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.2		1.6	0.39	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.4	J	1.6	0.39	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.4		1.6	0.63	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.50	J	1.6	0.39	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	14	I cn	1.6	1.0	ng/L	1		1633A	Total/NA

Client Sample ID: DC340005-MW-2 — Lab Sample ID: 410-227544-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	27		10	3.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanoic acid (PFHxA)	29		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	46		10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	53		10	4.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorononanoic acid (PFNA)	14		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	14		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	21		10	6.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanoic acid (PFBA)	5.6		3.0	0.83	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	9.9		1.5	0.46	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	7.0		1.5	0.38	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.3		1.5	0.61	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	14		1.5	0.68	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	13		1.5	0.38	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.5		1.5	0.38	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.3		1.5	0.61	ng/L	1		1633A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Client Sample ID: DC340005-MW-2 (Continued) — Lab Sample ID: 410-227544-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS)	0.67	J	1.5	0.38	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	21		1.5	0.99	ng/L	1		1633A	Total/NA

Client Sample ID: DC340005-DUP-1 — Lab Sample ID: 410-227544-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.4		3.5	0.96	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	10		1.7	0.52	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	6.8		1.7	0.44	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.3		1.7	0.70	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	14		1.7	0.79	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	0.50	J	1.7	0.44	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	14		1.7	0.44	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.7		1.7	0.44	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.3		1.7	0.70	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.71	J	1.7	0.44	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	22		1.7	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC340005-EB — Lab Sample ID: 410-227544-16

No Detections.

Client Sample ID: DC340005-FB — Lab Sample ID: 410-227544-17

No Detections.

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Client Sample ID: DC340005-MW-1
Date Collected: 06/12/25 14:15
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-12
Matrix: Water

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.4	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluoropentanoic acid (PFPeA)	**17**		9.9	3.0	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorohexanoic acid (PFHxA)	**23**		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluoroheptanoic acid (PFHpA)	**43**		9.9	4.0	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorooctanoic acid (PFOA)	**42**		9.9	4.4	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorononanoic acid (PFNA)	**15**		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorodecanoic acid (PFDA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluoroundecanoic acid (PFUnA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorododecanoic acid (PFDoA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorotridecanoic acid (PFTrDA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorotetradecanoic acid (PFTeDA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorobutanesulfonic acid (PFBS)	**6.2**	**J**	9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluoropentanesulfonic acid (PFPeS)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorohexanesulfonic acid (PFHxS)	**8.9**	**J**	9.9	4.0	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorooctanesulfonic acid (PFOS)	**15**		9.9	6.4	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorononanesulfonic acid (PFNS)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorododecanesulfonic acid (PFDoS)	ND		9.9	3.0	ng/L		07/08/25 09:23	07/11/25 05:26	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	4.9	ng/L		07/08/25 09:23	07/11/25 05:26	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	4.9	ng/L		07/08/25 09:23	07/11/25 05:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	4.9	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		49	12	ng/L		07/08/25 09:23	07/11/25 05:26	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		49	20	ng/L		07/08/25 09:23	07/11/25 05:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		9.9	6.9	ng/L		07/08/25 09:23	07/11/25 05:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1

Client Sample ID: DC340005-MW-1
Lab Sample ID: 410-227544-12

Date Collected: 06/12/25 14:15
Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	4.9	ng/L		07/08/25 09:23	07/11/25 05:26	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		49	14	ng/L		07/08/25 09:23	07/11/25 05:26	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		49	12	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		9.9	2.5	ng/L		07/08/25 09:23	07/11/25 05:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.3*		*10 - 130*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C5 PFPeA	*92.4*		*35 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C5 PFHxA	*97.2*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C4 PFHpA	*89.2*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C9 PFNA	*95.2*		*55 - 140*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C6 PFDA	*83.0*		*50 - 140*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C7 PFUnA	*84.2*		*30 - 140*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C2 PFTeDA	*75.6*		*10 - 130*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C3 PFBS	*100*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C3 PFHxS	*94.0*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C8 PFOS	*96.1*		*45 - 140*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
d3-NMeFOSAA	*89.0*		*45 - 200*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
d5-NEtFOSAA	*85.7*		*10 - 200*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C2 PFDoA	*74.0*		*10 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C2 4:2 FTS	*96.9*		*60 - 200*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C2 6:2 FTS	*94.6*		*60 - 200*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C2 8:2 FTS	*93.5*		*50 - 200*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C3 HFPO-DA	*82.3*		*25 - 160*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
d7-N-MeFOSE-M	*73.7*		*10 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
d9-N-EtFOSE-M	*80.3*		*10 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
d5-NEtPFOSA	*86.3*		*10 - 130*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
d3-NMePFOSA	*83.2*		*15 - 130*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C8 FOSA	*0.636*		*0 - 10*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
13C2 PFOA	*89.9*		*40 - 130*	*07/08/25 09:23*	*07/11/25 05:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA	*67*		*50 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*
M3PFPeA	*82*		*50 - 150*	*07/08/25 09:23*	*07/11/25 05:26*	*1*

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.6**	**J**	3.1	0.86	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluoropentanoic acid (PFPeA)	**1.7**		1.6	0.47	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorohexanoic acid (PFHxA)	**2.8**		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluoroheptanoic acid (PFHpA)	**1.8**		1.6	0.63	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorooctanoic acid (PFOA)	**6.5**		1.6	0.71	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorononanoic acid (PFNA)	**0.57**	**J**	1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Client Sample ID: DC340005-MW-1
Date Collected: 06/12/25 14:15
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-12
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorobutanesulfonic acid (PFBS)	**6.2**		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluoropentanesulfonic acid (PFPeS)	**1.4**	**J**	1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorohexanesulfonic acid (PFHxS)	**6.4**		1.6	0.63	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.50**	**J**	1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorooctanesulfonic acid (PFOS)	**14**	**I cn**	1.6	1.0	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		06/27/25 07:52	06/30/25 21:52	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.78	ng/L		06/27/25 07:52	06/30/25 21:52	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.78	ng/L		06/27/25 07:52	06/30/25 21:52	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.78	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	2.0	ng/L		06/27/25 07:52	06/30/25 21:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	3.1	ng/L		06/27/25 07:52	06/30/25 21:52	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		06/27/25 07:52	06/30/25 21:52	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		06/27/25 07:52	06/30/25 21:52	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.78	ng/L		06/27/25 07:52	06/30/25 21:52	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	7.8	2.2	ng/L		06/27/25 07:52	06/30/25 21:52	1

Client Sample ID: DC340005-MW-1
Lab Sample ID: 410-227544-12
Date Collected: 06/12/25 14:15
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	2.0	ng/L		06/27/25 07:52	06/30/25 21:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.1*		*5 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C5 PFPeA	*97.7*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C5 PFHxA	*96.3*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C4 PFHpA	*93.1*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C8 PFOA	*94.6*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C9 PFNA	*90.7*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C6 PFDA	*98.1*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C7 PFUnA	*90.3*		*30 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C2 PFTeDA	*80.0*		*10 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C3 PFBS	*89.1*		*40 - 135*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C3 PFHxS	*99.3*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C8 PFOS	*99.7*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C8 FOSA	*84.0*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
d3-NMeFOSAA	*90.5*		*40 - 170*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
d5-NEtFOSAA	*80.9*		*25 - 135*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C2 4:2 FTS	*93.0*		*40 - 200*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C2 6:2 FTS	*94.1*		*40 - 200*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C2 8:2 FTS	*88.7*		*40 - 300*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C3 HFPO-DA	*92.7*		*40 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
d7-N-MeFOSE-M	*64.7*		*10 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
d9-N-EtFOSE-M	*60.4*		*10 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
d5-NEtPFOSA	*78.5*		*10 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
d3-NMePFOSA	*81.3*		*10 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*
13C2 PFDoA	*90.3*		*10 - 130*	*06/27/25 07:52*	*06/30/25 21:52*	*1*

Client Sample ID: DC340005-MW-2
Lab Sample ID: 410-227544-13
Date Collected: 06/12/25 15:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluoropentanoic acid (PFPeA)	**27**		10	3.0	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorohexanoic acid (PFHxA)	**29**		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluoroheptanoic acid (PFHpA)	**46**		10	4.0	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorooctanoic acid (PFOA)	**53**		10	4.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorononanoic acid (PFNA)	**14**		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorobutanesulfonic acid (PFBS)	**14**		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10	4.0	ng/L		07/08/25 09:23	07/11/25 05:39	1

Client Sample ID: DC340005-MW-2
Lab Sample ID: 410-227544-13
Date Collected: 06/12/25 15:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorooctanesulfonic acid (PFOS)	**21**		10	6.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		07/08/25 09:23	07/11/25 05:39	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 05:39	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 05:39	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		07/08/25 09:23	07/11/25 05:39	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		07/08/25 09:23	07/11/25 05:39	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		07/08/25 09:23	07/11/25 05:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 05:39	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		07/08/25 09:23	07/11/25 05:39	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88.3*		*10 - 130*	*07/08/25 09:23*	*07/11/25 05:39*	*1*
13C5 PFPeA	*89.8*		*35 - 150*	*07/08/25 09:23*	*07/11/25 05:39*	*1*
13C5 PFHxA	*98.1*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:39*	*1*
13C4 PFHpA	*87.9*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:39*	*1*
13C9 PFNA	*100*		*55 - 140*	*07/08/25 09:23*	*07/11/25 05:39*	*1*

Client Sample ID: DC340005-MW-2
Date Collected: 06/12/25 15:00
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-13
Matrix: Water

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6 PFDA	90.5		50 - 140	07/08/25 09:23	07/11/25 05:39	1
13C7 PFUnA	87.5		30 - 140	07/08/25 09:23	07/11/25 05:39	1
13C2 PFTeDA	86.6		10 - 130	07/08/25 09:23	07/11/25 05:39	1
13C3 PFBS	102		55 - 150	07/08/25 09:23	07/11/25 05:39	1
13C3 PFHxS	98.2		55 - 150	07/08/25 09:23	07/11/25 05:39	1
13C8 PFOS	109		45 - 140	07/08/25 09:23	07/11/25 05:39	1
d3-NMeFOSAA	96.5		45 - 200	07/08/25 09:23	07/11/25 05:39	1
d5-NEtFOSAA	94.3		10 - 200	07/08/25 09:23	07/11/25 05:39	1
13C2 PFDoA	88.2		10 - 150	07/08/25 09:23	07/11/25 05:39	1
13C2 4:2 FTS	99.2		60 - 200	07/08/25 09:23	07/11/25 05:39	1
13C2 6:2 FTS	97.6		60 - 200	07/08/25 09:23	07/11/25 05:39	1
13C2 8:2 FTS	96.5		50 - 200	07/08/25 09:23	07/11/25 05:39	1
13C3 HFPO-DA	81.3		25 - 160	07/08/25 09:23	07/11/25 05:39	1
d7-N-MeFOSE-M	89.3		10 - 150	07/08/25 09:23	07/11/25 05:39	1
d9-N-EtFOSE-M	91.2		10 - 150	07/08/25 09:23	07/11/25 05:39	1
d5-NEtPFOSA	91.7		10 - 130	07/08/25 09:23	07/11/25 05:39	1
d3-NMePFOSA	89.1		15 - 130	07/08/25 09:23	07/11/25 05:39	1
13C8 FOSA	0.534		0 - 10	07/08/25 09:23	07/11/25 05:39	1
13C2 PFOA	91.8		40 - 130	07/08/25 09:23	07/11/25 05:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	63		50 - 150	07/08/25 09:23	07/11/25 05:39	1
M3PFPeA	81		50 - 150	07/08/25 09:23	07/11/25 05:39	1

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.6**		3.0	0.83	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluoropentanoic acid (PFPeA)	**9.9**		1.5	0.46	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorohexanoic acid (PFHxA)	**7.0**		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluoroheptanoic acid (PFHpA)	**5.3**		1.5	0.61	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorooctanoic acid (PFOA)	**14**		1.5	0.68	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorobutanesulfonic acid (PFBS)	**13**		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluoropentanesulfonic acid (PFPeS)	**1.5**		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorohexanesulfonic acid (PFHxS)	**4.3**		1.5	0.61	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.67**	**J**	1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorooctanesulfonic acid (PFOS)	**21**		1.5	0.99	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.46	ng/L		06/27/25 07:52	06/30/25 22:05	1

Client Sample ID: DC340005-MW-2
Lab Sample ID: 410-227544-13
Date Collected: 06/12/25 15:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.76	ng/L		06/27/25 07:52	06/30/25 22:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.76	ng/L		06/27/25 07:52	06/30/25 22:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.76	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.6	1.9	ng/L		06/27/25 07:52	06/30/25 22:05	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.6	3.0	ng/L		06/27/25 07:52	06/30/25 22:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		06/27/25 07:52	06/30/25 22:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.38	ng/L		06/27/25 07:52	06/30/25 22:05	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.76	ng/L		06/27/25 07:52	06/30/25 22:05	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	7.6	2.1	ng/L		06/27/25 07:52	06/30/25 22:05	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.6	1.9	ng/L		06/27/25 07:52	06/30/25 22:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97.9*		*5 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C5 PFPeA	*101*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C5 PFHxA	*101*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C4 PFHpA	*95.7*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C8 PFOA	*98.0*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C9 PFNA	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C6 PFDA	*101*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C7 PFUnA	*101*		*30 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C2 PFTeDA	*87.9*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C3 PFBS	*91.7*		*40 - 135*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C3 PFHxS	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*
13C8 PFOS	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:05*	*1*

Client Sample ID: DC340005-MW-2
Lab Sample ID: 410-227544-13
Date Collected: 06/12/25 15:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	85.1		40 - 130	06/27/25 07:52	06/30/25 22:05	1
d3-NMeFOSAA	91.5		40 - 170	06/27/25 07:52	06/30/25 22:05	1
d5-NEtFOSAA	75.1		25 - 135	06/27/25 07:52	06/30/25 22:05	1
13C2 4:2 FTS	87.7		40 - 200	06/27/25 07:52	06/30/25 22:05	1
13C2 6:2 FTS	99.2		40 - 200	06/27/25 07:52	06/30/25 22:05	1
13C2 8:2 FTS	94.0		40 - 300	06/27/25 07:52	06/30/25 22:05	1
13C3 HFPO-DA	93.3		40 - 130	06/27/25 07:52	06/30/25 22:05	1
d7-N-MeFOSE-M	84.0		10 - 130	06/27/25 07:52	06/30/25 22:05	1
d9-N-EtFOSE-M	81.0		10 - 130	06/27/25 07:52	06/30/25 22:05	1
d5-NEtPFOSA	77.9		10 - 130	06/27/25 07:52	06/30/25 22:05	1
d3-NMePFOSA	75.9		10 - 130	06/27/25 07:52	06/30/25 22:05	1
13C2 PFDoA	95.6		10 - 130	06/27/25 07:52	06/30/25 22:05	1

Client Sample ID: DC340005-DUP-1
Lab Sample ID: 410-227544-14
Date Collected: 06/12/25 00:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.4**		3.5	0.96	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluoropentanoic acid (PFPeA)	**10**		1.7	0.52	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorohexanoic acid (PFHxA)	**6.8**		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluoroheptanoic acid (PFHpA)	**5.3**		1.7	0.70	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorooctanoic acid (PFOA)	**14**		1.7	0.79	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorononanoic acid (PFNA)	**0.50**	**J**	1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorobutanesulfonic acid (PFBS)	**14**		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluoropentanesulfonic acid (PFPeS)	**1.7**		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorohexanesulfonic acid (PFHxS)	**4.3**		1.7	0.70	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.71**	**J**	1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorooctanesulfonic acid (PFOS)	**22**		1.7	1.1	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.52	ng/L		06/27/25 07:52	06/30/25 22:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.87	ng/L		06/27/25 07:52	06/30/25 22:19	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	0.87	ng/L		06/27/25 07:52	06/30/25 22:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.87	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Client Sample ID: DC340005-DUP-1
Date Collected: 06/12/25 00:00
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-14
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.7	2.2	ng/L		06/27/25 07:52	06/30/25 22:19	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.7	3.5	ng/L		06/27/25 07:52	06/30/25 22:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		06/27/25 07:52	06/30/25 22:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.44	ng/L		06/27/25 07:52	06/30/25 22:19	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.87	ng/L		06/27/25 07:52	06/30/25 22:19	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	8.7	2.4	ng/L		06/27/25 07:52	06/30/25 22:19	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.7	2.2	ng/L		06/27/25 07:52	06/30/25 22:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.0*		*5 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C5 PFPeA	*99.7*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C5 PFHxA	*97.8*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C4 PFHpA	*95.0*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C8 PFOA	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C9 PFNA	*96.4*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C6 PFDA	*105*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C7 PFUnA	*105*		*30 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C2 PFTeDA	*91.2*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C3 PFBS	*93.9*		*40 - 135*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C3 PFHxS	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C8 PFOS	*104*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C8 FOSA	*91.3*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
d3-NMeFOSAA	*101*		*40 - 170*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
d5-NEtFOSAA	*85.2*		*25 - 135*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C2 4:2 FTS	*99.2*		*40 - 200*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C2 6:2 FTS	*96.0*		*40 - 200*	*06/27/25 07:52*	*06/30/25 22:19*	*1*
13C2 8:2 FTS	*92.9*		*40 - 300*	*06/27/25 07:52*	*06/30/25 22:19*	*1*

Client Sample ID: DC340005-DUP-1
Lab Sample ID: 410-227544-14
Date Collected: 06/12/25 00:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	94.6		40 - 130	06/27/25 07:52	06/30/25 22:19	1
d7-N-MeFOSE-M	90.6		10 - 130	06/27/25 07:52	06/30/25 22:19	1
d9-N-EtFOSE-M	84.2		10 - 130	06/27/25 07:52	06/30/25 22:19	1
d5-NEtPFOSA	89.7		10 - 130	06/27/25 07:52	06/30/25 22:19	1
d3-NMePFOSA	88.8		10 - 130	06/27/25 07:52	06/30/25 22:19	1
13C2 PFDoA	97.9		10 - 130	06/27/25 07:52	06/30/25 22:19	1

Client Sample ID: DC340005-EB
Lab Sample ID: 410-227544-16
Date Collected: 06/12/25 15:25
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.8	0.78	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluoropentanoic acid (PFPeA)	ND		1.4	0.42	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorohexanoic acid (PFHxA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluoroheptanoic acid (PFHpA)	ND		1.4	0.56	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorooctanoic acid (PFOA)	ND		1.4	0.63	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorononanoic acid (PFNA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorodecanoic acid (PFDA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorododecanoic acid (PFDoA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.4	0.56	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.4	0.92	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorononanesulfonic acid (PFNS)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.4	0.42	ng/L		06/27/25 07:52	06/30/25 22:32	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.8	0.71	ng/L		06/27/25 07:52	06/30/25 22:32	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.8	0.71	ng/L		06/27/25 07:52	06/30/25 22:32	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.8	0.71	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.1	1.8	ng/L		06/27/25 07:52	06/30/25 22:32	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Client Sample ID: DC340005-EB
Date Collected: 06/12/25 15:25
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-16
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.1	2.8	ng/L		06/27/25 07:52	06/30/25 22:32	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	0.99	ng/L		06/27/25 07:52	06/30/25 22:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.4	0.35	ng/L		06/27/25 07:52	06/30/25 22:32	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.8	0.71	ng/L		06/27/25 07:52	06/30/25 22:32	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	7.1	2.0	ng/L		06/27/25 07:52	06/30/25 22:32	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.1	1.8	ng/L		06/27/25 07:52	06/30/25 22:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.8*		*5 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C5 PFPeA	*99.1*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C5 PFHxA	*105*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C4 PFHpA	*98.8*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C8 PFOA	*99.4*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C9 PFNA	*104*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C6 PFDA	*97.8*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C7 PFUnA	*95.3*		*30 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C2 PFTeDA	*87.2*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C3 PFBS	*96.9*		*40 - 135*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C3 PFHxS	*99.5*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C8 PFOS	*107*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C8 FOSA	*92.6*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
d3-NMeFOSAA	*99.9*		*40 - 170*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
d5-NEtFOSAA	*97.4*		*25 - 135*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C2 4:2 FTS	*96.2*		*40 - 200*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C2 6:2 FTS	*103*		*40 - 200*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C2 8:2 FTS	*92.9*		*40 - 300*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C3 HFPO-DA	*100*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
d7-N-MeFOSE-M	*103*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
d9-N-EtFOSE-M	*86.6*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
d5-NEtPFOSA	*87.1*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
d3-NMePFOSA	*88.4*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*
13C2 PFDoA	*102*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:32*	*1*

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Client Sample ID: DC340005-FB
Date Collected: 06/12/25 15:20
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-17
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.87	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.48	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.63	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.71	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.63	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.48	ng/L		06/27/25 07:52	06/30/25 22:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.79	ng/L		06/27/25 07:52	06/30/25 22:46	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.79	ng/L		06/27/25 07:52	06/30/25 22:46	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.79	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.9	2.0	ng/L		06/27/25 07:52	06/30/25 22:46	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.9	3.2	ng/L		06/27/25 07:52	06/30/25 22:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		06/27/25 07:52	06/30/25 22:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Client Sample ID: DC340005-FB
Date Collected: 06/12/25 15:20
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-17
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.40	ng/L		06/27/25 07:52	06/30/25 22:46	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.79	ng/L		06/27/25 07:52	06/30/25 22:46	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	7.9	2.2	ng/L		06/27/25 07:52	06/30/25 22:46	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.9	2.0	ng/L		06/27/25 07:52	06/30/25 22:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.0*		*5 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C5 PFPeA	*98.5*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C5 PFHxA	*106*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C4 PFHpA	*101*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C8 PFOA	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C9 PFNA	*101*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C6 PFDA	*105*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C7 PFUnA	*95.2*		*30 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C2 PFTeDA	*89.5*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C3 PFBS	*93.2*		*40 - 135*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C3 PFHxS	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C8 PFOS	*104*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C8 FOSA	*91.2*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
d3-NMeFOSAA	*109*		*40 - 170*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
d5-NEtFOSAA	*95.5*		*25 - 135*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C2 4:2 FTS	*95.7*		*40 - 200*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C2 6:2 FTS	*103*		*40 - 200*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C2 8:2 FTS	*95.7*		*40 - 300*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C3 HFPO-DA	*100*		*40 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
d7-N-MeFOSE-M	*84.6*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
d9-N-EtFOSE-M	*84.5*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
d5-NEtPFOSA	*81.8*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
d3-NMePFOSA	*84.5*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*
13C2 PFDoA	*96.4*		*10 - 130*	*06/27/25 07:52*	*06/30/25 22:46*	*1*

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)	
		PFUnA	C3PFPeA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
410-227544-12	DC340005-MW-1	67	82
410-227544-13	DC340005-MW-2	63	81

Surrogate Legend

PFUnA = 13C2 PFUnA
C3PFPeA = M3PFPeA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)	
		PFUnA	C3PFPeA
Lab Sample ID	Client Sample ID		
MB 410-668147/1-A	Method Blank		

Surrogate Legend

PFUnA = 13C2 PFUnA
C3PFPeA = M3PFPeA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(55-140)	(50-140)	(30-140)	(10-130)
410-227544-12	DC340005-MW-1	90.3	92.4	97.2	89.2	95.2	83.0	84.2	75.6
410-227544-13	DC340005-MW-2	88.3	89.8	98.1	87.9	100	90.5	87.5	86.6
MB 410-668147/1-A	Method Blank	88.6	94.1	101	94.7	97.3	85.3	77.1	75.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFDoA	M242FTS	M262FTS
Lab Sample ID	Client Sample ID	(55-150)	(55-150)	(45-140)	(45-200)	(10-200)	(10-150)	(60-200)	(60-200)
410-227544-12	DC340005-MW-1	100	94.0	96.1	89.0	85.7	74.0	96.9	94.6
410-227544-13	DC340005-MW-2	102	98.2	109	96.5	94.3	88.2	99.2	97.6
MB 410-668147/1-A	Method Blank	101	94.1	101	87.9	90.8	78.7	94.9	101

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFOSA	13PFOA
Lab Sample ID	Client Sample ID	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)	(0-10)	(40-130)
410-227544-12	DC340005-MW-1	93.5	82.3	73.7	80.3	86.3	83.2	0.636	89.9
410-227544-13	DC340005-MW-2	96.5	81.3	89.3	91.2	91.7	89.1	0.534	91.8
MB 410-668147/1-A	Method Blank	92.1	93.5	85.1	88.4	86.0	86.6		88.7

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFOSA = 13C8 FOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(20-140)	(20-140)	(10-130)
LCS 410-668147/2-A	Lab Control Sample	86.0	89.0	93.6	84.1	96.5	84.8	77.3	59.4
LCSD 410-668147/3-A	Lab Control Sample Dup	80.9	79.2	86.3	76.9	89.7	79.9	76.6	71.2

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-130)	PFPeA (40-150)	13C5PHA (40-150)	C4PFHA (40-150)	C9PFNA (30-140)	C6PFDA (20-140)	13C7PUA (20-140)	PFTDA (10-130)
LLCS 410-668147/4-A	Lab Control Sample	84.3	82.1	87.3	80.9	92.7	78.4	80.2	66.3

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	C3PFBS (25-150)	C3PFHS (25-150)	C8PFOS (20-140)	d3NMFOS (10-200)	d5NEFOS (10-200)	PFDoA (10-150)	M242FTS (25-200)	M262FTS (25-200)
LCS 410-668147/2-A	Lab Control Sample	96.1	92.4	95.4	84.5	81.8	75.5	90.8	91.1
LCSD 410-668147/3-A	Lab Control Sample Dup	89.6	86.4	94.4	90.3	90.4	73.3	85.3	86.7
LLCS 410-668147/4-A	Lab Control Sample	93.1	91.2	94.9	87.6	84.7	73.5	93.5	91.0

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	M282FTS (25-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (10-130)	13PFOA (40-130)
LCS 410-668147/2-A	Lab Control Sample	87.2	82.0	76.6	75.3	83.1	74.5	87.7
LCSD 410-668147/3-A	Lab Control Sample Dup	84.6	73.8	80.2	82.1	83.1	78.5	80.8
LLCS 410-668147/4-A	Lab Control Sample	87.8	75.4	79.7	84.5	82.7	74.5	83.5

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
13PFOA = 13C2 PFOA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-227544-12	DC340005-MW-1	93.1	97.7	96.3	93.1	94.6	90.7	98.1	90.3
410-227544-13	DC340005-MW-2	97.9	101	101	95.7	98.0	102	101	101
410-227544-14	DC340005-DUP-1	99.0	99.7	97.8	95.0	102	96.4	105	105
410-227544-16	DC340005-EB	98.8	99.1	105	98.8	99.4	104	97.8	95.3
410-227544-17	DC340005-FB	99.0	98.5	106	101	102	101	105	95.2

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
LCS 410-663812/10-A	Lab Control Sample	93.5	104	95.0	93.9	91.4	94.4	87.3	85.9
LCSD 410-663812/11-A	Lab Control Sample Dup	94.6	96.9	98.4	93.4	92.0	88.6	90.9	92.2
LLCS 410-663812/12-A	Lab Control Sample	111	116	112	108	98.3	103	96.7	88.5
MB 410-663812/9-A	Method Blank	91.2	93.4	98.3	99.6	102	98.8	101	110

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-227544-12	DC340005-MW-1	80.0	89.1	99.3	99.7	84.0	90.5	80.9	93.0
410-227544-13	DC340005-MW-2	87.9	91.7	102	102	85.1	91.5	75.1	87.7
410-227544-14	DC340005-DUP-1	91.2	93.9	102	104	91.3	101	85.2	99.2
410-227544-16	DC340005-EB	87.2	96.9	99.5	107	92.6	99.9	97.4	96.2
410-227544-17	DC340005-FB	89.5	93.2	102	104	91.2	109	95.5	95.7
LCS 410-663812/10-A	Lab Control Sample	77.5	96.7	95.5	89.7	82.1	102	86.1	99.5
LCSD 410-663812/11-A	Lab Control Sample Dup	75.3	81.4	91.7	92.5	84.6	111	93.6	93.6
LLCS 410-663812/12-A	Lab Control Sample	75.9	102	104	101	95.1	115	105	114
MB 410-663812/9-A	Method Blank	97.7	86.0	97.6	105	95.2	119	132	89.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-227544-12	DC340005-MW-1	94.1	88.7	92.7	64.7	60.4	78.5	81.3	90.3
410-227544-13	DC340005-MW-2	99.2	94.0	93.3	84.0	81.0	77.9	75.9	95.6
410-227544-14	DC340005-DUP-1	96.0	92.9	94.6	90.6	84.2	89.7	88.8	97.9
410-227544-16	DC340005-EB	103	92.9	100	103	86.6	87.1	88.4	102
410-227544-17	DC340005-FB	103	95.7	100	84.6	84.5	81.8	84.5	96.4
LCS 410-663812/10-A	Lab Control Sample	101	91.9	97.0	92.9	81.3	72.2	75.9	86.9
LCSD 410-663812/11-A	Lab Control Sample Dup	92.2	85.7	96.3	81.2	73.9	77.7	75.9	92.0
LLCS 410-663812/12-A	Lab Control Sample	123	105	107	80.9	75.6	81.8	84.7	91.0
MB 410-663812/9-A	Method Blank	95.7	99.8	96.7	118	95.1	96.8	91.6	115

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227544-2
Project/Site: $2.75 Cleaners (DC340005)

NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-668147/1-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoropentanoic acid (PFPeA)	ND		10	3.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorohexanoic acid (PFHxA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoroheptanoic acid (PFHpA)	ND		10	4.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorooctanoic acid (PFOA)	ND		10	4.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10	4.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorooctanesulfonic acid (PFOS)	ND		10	6.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		07/08/25 09:23	07/11/25 04:18	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-668147/1-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		07/08/25 09:23	07/11/25 04:18	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88.6*		*10 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C5 PFPeA	*94.1*		*35 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C5 PFHxA	*101*		*55 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C4 PFHpA	*94.7*		*55 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C9 PFNA	*97.3*		*55 - 140*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C6 PFDA	*85.3*		*50 - 140*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C7 PFUnA	*77.1*		*30 - 140*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 PFTeDA	*75.2*		*10 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C3 PFBS	*101*		*55 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C3 PFHxS	*94.1*		*55 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C8 PFOS	*101*		*45 - 140*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d3-NMeFOSAA	*87.9*		*45 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d5-NEtFOSAA	*90.8*		*10 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 PFDoA	*78.7*		*10 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 4:2 FTS	*94.9*		*60 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 6:2 FTS	*101*		*60 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 8:2 FTS	*92.1*		*50 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C3 HFPO-DA	*93.5*		*25 - 160*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d7-N-MeFOSE-M	*85.1*		*10 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d9-N-EtFOSE-M	*88.4*		*10 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d5-NEtPFOSA	*86.0*		*10 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d3-NMePFOSA	*86.6*		*15 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 PFOA	*88.7*		*40 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA				*07/08/25 09:23*	*07/11/25 04:18*	*1*
M3PFPeA				*07/08/25 09:23*	*07/11/25 04:18*	*1*

Lab Sample ID: LCS 410-668147/2-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	400	359		ng/L		90	58 - 148
Perfluoropentanoic acid (PFPeA)	200	177		ng/L		89	54 - 152
Perfluorohexanoic acid (PFHxA)	200	170		ng/L		85	55 - 152
Perfluoroheptanoic acid (PFHpA)	200	184		ng/L		92	54 - 154

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-668147/2-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanoic acid (PFOA)	200	169		ng/L		84	52 - 161
Perfluorononanoic acid (PFNA)	200	169		ng/L		85	59 - 149
Perfluorodecanoic acid (PFDA)	200	163		ng/L		82	52 - 147
Perfluoroundecanoic acid (PFUnA)	200	185		ng/L		92	48 - 159
Perfluorododecanoic acid (PFDoA)	200	178		ng/L		89	64 - 142
Perfluorotridecanoic acid (PFTrDA)	200	173		ng/L		86	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	200	164		ng/L		82	47 - 161
Perfluorobutanesulfonic acid (PFBS)	178	143		ng/L		80	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	188	177		ng/L		94	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	182	142		ng/L		78	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	191	154		ng/L		81	55 - 152
Perfluorooctanesulfonic acid (PFOS)	186	151		ng/L		81	58 - 149
Perfluorononanesulfonic acid (PFNS)	192	155		ng/L		81	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	194	131		ng/L		68	36 - 145
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	375	351		ng/L		93	67 - 146
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	381	342		ng/L		90	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	384	326		ng/L		85	63 - 152
Perfluorooctanesulfonamide (PFOSA)	200	184		ng/L		92	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	200	182		ng/L		91	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	200	174		ng/L		87	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	200	182		ng/L		91	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	200	182		ng/L		91	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	1000	954		ng/L		95	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	1000	954		ng/L		95	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	150	145		ng/L		97	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	189	180		ng/L		95	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	200	187		ng/L		93	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	200	185		ng/L		92	48 - 161

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-668147/2-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			187	169		ng/L		91	56 - 156		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	176		ng/L		93	46 - 156		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	158		ng/L		89	56 - 151		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	347		ng/L		87	62 - 129		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	739		ng/L		74	63 - 134		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	643		ng/L		64	50 - 138		
Perfluorodecanesulfonic acid (PFDS)			193	157		ng/L		82	51 - 147		
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	187		ng/L		94	51 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*86.0*		*10 - 130*
13C5 PFPeA	*89.0*		*40 - 150*
13C5 PFHxA	*93.6*		*40 - 150*
13C4 PFHpA	*84.1*		*40 - 150*
13C9 PFNA	*96.5*		*30 - 140*
13C6 PFDA	*84.8*		*20 - 140*
13C7 PFUnA	*77.3*		*20 - 140*
13C2 PFTeDA	*59.4*		*10 - 130*
13C3 PFBS	*96.1*		*25 - 150*
13C3 PFHxS	*92.4*		*25 - 150*
13C8 PFOS	*95.4*		*20 - 140*
d3-NMeFOSAA	*84.5*		*10 - 200*
d5-NEtFOSAA	*81.8*		*10 - 200*
13C2 PFDoA	*75.5*		*10 - 150*
13C2 4:2 FTS	*90.8*		*25 - 200*
13C2 6:2 FTS	*91.1*		*25 - 200*
13C2 8:2 FTS	*87.2*		*25 - 200*
13C3 HFPO-DA	*82.0*		*25 - 160*
d7-N-MeFOSE-M	*76.6*		*10 - 150*
d9-N-EtFOSE-M	*75.3*		*10 - 150*
d5-NEtPFOSA	*83.1*		*10 - 130*
d3-NMePFOSA	*74.5*		*10 - 130*
13C2 PFOA	*87.7*		*40 - 130*

Lab Sample ID: LCSD 410-668147/3-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			400	368		ng/L		92	58 - 148	3	30
Perfluoropentanoic acid (PFPeA)			200	177		ng/L		88	54 - 152	0	30

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-668147/3-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)	200	165		ng/L		82	55 - 152	3	30
Perfluoroheptanoic acid (PFHpA)	200	178		ng/L		89	54 - 154	4	30
Perfluorooctanoic acid (PFOA)	200	178		ng/L		89	52 - 161	5	30
Perfluorononanoic acid (PFNA)	200	194		ng/L		97	59 - 149	13	30
Perfluorodecanoic acid (PFDA)	200	165		ng/L		82	52 - 147	1	30
Perfluoroundecanoic acid (PFUnA)	200	185		ng/L		92	48 - 159	0	30
Perfluorododecanoic acid (PFDoA)	200	169		ng/L		84	64 - 142	5	30
Perfluorotridecanoic acid (PFTrDA)	200	175		ng/L		87	49 - 148	1	30
Perfluorotetradecanoic acid (PFTeDA)	200	183		ng/L		91	47 - 161	11	30
Perfluorobutanesulfonic acid (PFBS)	178	142		ng/L		80	62 - 144	0	30
Perfluoropentanesulfonic acid (PFPeS)	188	183		ng/L		98	59 - 151	3	30
Perfluorohexanesulfonic acid (PFHxS)	182	150		ng/L		82	57 - 146	5	30
Perfluoroheptanesulfonic acid (PFHpS)	191	167		ng/L		87	55 - 152	8	30
Perfluorooctanesulfonic acid (PFOS)	186	157		ng/L		85	58 - 149	4	30
Perfluorononanesulfonic acid (PFNS)	192	164		ng/L		85	52 - 148	5	30
Perfluorododecanesulfonic acid (PFDoS)	194	168		ng/L		87	36 - 145	25	30
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	375	346		ng/L		92	67 - 146	1	30
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	381	351		ng/L		92	61 - 151	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	384	344		ng/L		90	63 - 152	5	30
Perfluorooctanesulfonamide (PFOSA)	200	181		ng/L		91	61 - 148	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	200	188		ng/L		94	63 - 145	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	200	179		ng/L		90	65 - 139	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	200	181		ng/L		91	58 - 144	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	200	182		ng/L		91	59 - 146	0	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	1000	973		ng/L		97	71 - 136	2	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	1000	939		ng/L		94	69 - 137	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	150	146		ng/L		97	63 - 144	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	189	188		ng/L		100	68 - 146	5	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	200	192		ng/L		96	55 - 148	3	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	200	183		ng/L		91	48 - 161	1	30

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-668147/3-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			187	175		ng/L		94	56 - 156	3	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	182		ng/L		97	46 - 156	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	150		ng/L		84	56 - 151	5	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	365		ng/L		91	62 - 129	5	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	735		ng/L		74	63 - 134	0	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	663		ng/L		66	50 - 138	3	30
Perfluorodecanesulfonic acid (PFDS)			193	172		ng/L		89	51 - 147	9	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	188		ng/L		94	51 - 145	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*80.9*		*10 - 130*
13C5 PFPeA	*79.2*		*40 - 150*
13C5 PFHxA	*86.3*		*40 - 150*
13C4 PFHpA	*76.9*		*40 - 150*
13C9 PFNA	*89.7*		*30 - 140*
13C6 PFDA	*79.9*		*20 - 140*
13C7 PFUnA	*76.6*		*20 - 140*
13C2 PFTeDA	*71.2*		*10 - 130*
13C3 PFBS	*89.6*		*25 - 150*
13C3 PFHxS	*86.4*		*25 - 150*
13C8 PFOS	*94.4*		*20 - 140*
d3-NMeFOSAA	*90.3*		*10 - 200*
d5-NEtFOSAA	*90.4*		*10 - 200*
13C2 PFDoA	*73.3*		*10 - 150*
13C2 4:2 FTS	*85.3*		*25 - 200*
13C2 6:2 FTS	*86.7*		*25 - 200*
13C2 8:2 FTS	*84.6*		*25 - 200*
13C3 HFPO-DA	*73.8*		*25 - 160*
d7-N-MeFOSE-M	*80.2*		*10 - 150*
d9-N-EtFOSE-M	*82.1*		*10 - 150*
d5-NEtPFOSA	*83.1*		*10 - 130*
d3-NMePFOSA	*78.5*		*10 - 130*
13C2 PFOA	*80.8*		*40 - 130*

Lab Sample ID: LLCS 410-668147/4-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)			40.0	37.3		ng/L		93	44 - 157		
Perfluoropentanoic acid (PFPeA)			20.0	18.1		ng/L		90	57 - 148		

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-668147/4-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid (PFHxA)	20.0	19.7		ng/L		99	62 - 149
Perfluoroheptanoic acid (PFHpA)	20.0	18.0		ng/L		90	56 - 150
Perfluorooctanoic acid (PFOA)	20.0	17.8		ng/L		89	57 - 161
Perfluorononanoic acid (PFNA)	20.0	16.1		ng/L		80	53 - 157
Perfluorodecanoic acid (PFDA)	20.0	19.1		ng/L		96	43 - 158
Perfluoroundecanoic acid (PFUnA)	20.0	16.1		ng/L		80	50 - 155
Perfluorododecanoic acid (PFDoA)	20.0	17.2		ng/L		86	60 - 141
Perfluorotridecanoic acid (PFTrDA)	20.0	16.3		ng/L		81	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	20.0	13.9		ng/L		69	52 - 156
Perfluorobutanesulfonic acid (PFBS)	17.8	14.6		ng/L		82	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	18.8	19.1		ng/L		102	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	18.2	22.2		ng/L		121	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	19.1	16.2		ng/L		85	51 - 150
Perfluorooctanesulfonic acid (PFOS)	18.6	23.0		ng/L		123	43 - 162
Perfluorononanesulfonic acid (PFNS)	19.2	14.6		ng/L		76	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	19.4	13.0		ng/L		67	30 - 138
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	37.5	34.8		ng/L		93	52 - 158
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	38.1	37.3		ng/L		98	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	38.4	36.4		ng/L		95	46 - 165
Perfluorooctanesulfonamide (PFOSA)	20.0	16.7		ng/L		84	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	20.0	19.0		ng/L		95	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	20.0	18.7		ng/L		94	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20.0	18.5		ng/L		93	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20.0	20.5		ng/L		102	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	100	104		ng/L		104	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	100	93.9		ng/L		94	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	15.0	13.7		ng/L		91	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	18.9	17.7		ng/L		93	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	20.0	18.1		ng/L		91	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	20.0	14.7		ng/L		73	47 - 160

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-668147/4-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	18.7	15.9		ng/L		85	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	18.9	15.9		ng/L		84	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	17.8	14.2		ng/L		79	56 - 144
3-Perfluoropropylpropanoic acid (3:3 FTCA)	40.0	39.1		ng/L		98	32 - 161
3-Perfluoropentylpropanoic acid (5:3 FTCA)	100	68.2		ng/L		68	39 - 156
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	100	71.2		ng/L		71	36 - 149
Perfluorodecanesulfonic acid (PFDS)	19.3	15.9		ng/L		82	50 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	20.0	18.9		ng/L		94	48 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*84.3*		*10 - 130*
13C5 PFPeA	*82.1*		*40 - 150*
13C5 PFHxA	*87.3*		*40 - 150*
13C4 PFHpA	*80.9*		*40 - 150*
13C9 PFNA	*92.7*		*30 - 140*
13C6 PFDA	*78.4*		*20 - 140*
13C7 PFUnA	*80.2*		*20 - 140*
13C2 PFTeDA	*66.3*		*10 - 130*
13C3 PFBS	*93.1*		*25 - 150*
13C3 PFHxS	*91.2*		*25 - 150*
13C8 PFOS	*94.9*		*20 - 140*
d3-NMeFOSAA	*87.6*		*10 - 200*
d5-NEtFOSAA	*84.7*		*10 - 200*
13C2 PFDoA	*73.5*		*10 - 150*
13C2 4:2 FTS	*93.5*		*25 - 200*
13C2 6:2 FTS	*91.0*		*25 - 200*
13C2 8:2 FTS	*87.8*		*25 - 200*
13C3 HFPO-DA	*75.4*		*25 - 160*
d7-N-MeFOSE-M	*79.7*		*10 - 150*
d9-N-EtFOSE-M	*84.5*		*10 - 150*
d5-NEtPFOSA	*82.7*		*10 - 130*
d3-NMePFOSA	*74.5*		*10 - 130*
13C2 PFOA	*83.5*		*40 - 130*

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-663812/9-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 663812

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		06/27/25 07:52	06/30/25 20:57	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		06/27/25 07:52	06/30/25 20:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-663812/9-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 663812

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		06/27/25 07:52	06/30/25 20:57	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		06/27/25 07:52	06/30/25 20:57	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91.2*		*5 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C5 PFPeA	*93.4*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C5 PFHxA	*98.3*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C4 PFHpA	*99.6*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C8 PFOA	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C9 PFNA	*98.8*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C6 PFDA	*101*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C7 PFUnA	*110*		*30 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 PFTeDA	*97.7*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C3 PFBS	*86.0*		*40 - 135*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C3 PFHxS	*97.6*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C8 PFOS	*105*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C8 FOSA	*95.2*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d3-NMeFOSAA	*119*		*40 - 170*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d5-NEtFOSAA	*132*		*25 - 135*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 4:2 FTS	*89.1*		*40 - 200*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 6:2 FTS	*95.7*		*40 - 200*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 8:2 FTS	*99.8*		*40 - 300*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C3 HFPO-DA	*96.7*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d7-N-MeFOSE-M	*118*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d9-N-EtFOSE-M	*95.1*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d5-NEtPFOSA	*96.8*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d3-NMePFOSA	*91.6*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 PFDoA	*115*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*

Lab Sample ID: LCS 410-663812/10-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	65.0		ng/L		81	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	32.6		ng/L		82	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	31.8		ng/L		80	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	31.2		ng/L		78	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	29.7		ng/L		74	70 - 150
Perfluorononanoic acid (PFNA)	40.0	32.4		ng/L		81	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	33.7		ng/L		84	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-663812/10-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	38.5		ng/L		96	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	35.8		ng/L		90	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	33.7		ng/L		84	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.8		ng/L		77	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.4		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	32.7		ng/L		87	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	28.1		ng/L		77	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.1		ng/L		87	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	31.2		ng/L		84	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	31.6		ng/L		82	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	32.5		ng/L		84	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	26.5		ng/L		68	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	70.7		ng/L		94	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	69.2		ng/L		91	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	68.6		ng/L		89	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	36.4		ng/L		91	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	34.1		ng/L		85	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	35.5		ng/L		89	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	32.8		ng/L		82	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.8		ng/L		85	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	149		ng/L		74	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	158		ng/L		79	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.4		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	31.3		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	34.2		ng/L		85	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.2		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	35.0		ng/L		87	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-663812/10-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.3		ng/L		81	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	32.4		ng/L		86	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	28.2		ng/L		79	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	64.6		ng/L		81	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	147		ng/L		73	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	150		ng/L		75	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*93.5*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*95.0*		*40 - 130*
13C4 PFHpA	*93.9*		*40 - 130*
13C8 PFOA	*91.4*		*40 - 130*
13C9 PFNA	*94.4*		*40 - 130*
13C6 PFDA	*87.3*		*40 - 130*
13C7 PFUnA	*85.9*		*30 - 130*
13C2 PFTeDA	*77.5*		*10 - 130*
13C3 PFBS	*96.7*		*40 - 135*
13C3 PFHxS	*95.5*		*40 - 130*
13C8 PFOS	*89.7*		*40 - 130*
13C8 FOSA	*82.1*		*40 - 130*
d3-NMeFOSAA	*102*		*40 - 170*
d5-NEtFOSAA	*86.1*		*25 - 135*
13C2 4:2 FTS	*99.5*		*40 - 200*
13C2 6:2 FTS	*101*		*40 - 200*
13C2 8:2 FTS	*91.9*		*40 - 300*
13C3 HFPO-DA	*97.0*		*40 - 130*
d7-N-MeFOSE-M	*92.9*		*10 - 130*
d9-N-EtFOSE-M	*81.3*		*10 - 130*
d5-NEtPFOSA	*72.2*		*10 - 130*
d3-NMePFOSA	*75.9*		*10 - 130*
13C2 PFDoA	*86.9*		*10 - 130*

Lab Sample ID: LCSD 410-663812/11-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 663812

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	66.8		ng/L		84	70 - 140	3	30
Perfluoropentanoic acid (PFPeA)			40.0	34.4		ng/L		86	65 - 135	5	30
Perfluorohexanoic acid (PFHxA)			40.0	32.2		ng/L		81	70 - 145	1	30
Perfluoroheptanoic acid (PFHpA)			40.0	32.7		ng/L		82	70 - 150	5	30
Perfluorooctanoic acid (PFOA)			40.0	31.9		ng/L		80	70 - 150	7	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-663812/11-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 663812

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	33.0		ng/L		82	70 - 150	2	30
Perfluorodecanoic acid (PFDA)	40.0	33.4		ng/L		83	70 - 140	1	30
Perfluoroundecanoic acid (PFUnA)	40.0	32.4		ng/L		81	70 - 145	17	30
Perfluorododecanoic acid (PFDoA)	40.0	36.5		ng/L		91	70 - 140	2	30
Perfluorotridecanoic acid (PFTrDA)	40.0	35.0		ng/L		87	65 - 140	4	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	31.8		ng/L		79	60 - 140	3	30
Perfluorobutanesulfonic acid (PFBS)	35.5	29.3		ng/L		82	60 - 145	4	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	30.5		ng/L		81	65 - 140	7	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	25.3		ng/L		69	65 - 145	10	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	35.0		ng/L		92	70 - 150	6	30
Perfluorooctanesulfonic acid (PFOS)	37.2	32.0		ng/L		86	55 - 150	3	30
Perfluorononanesulfonic acid (PFNS)	38.5	31.5		ng/L		82	65 - 145	0	30
Perfluorodecanesulfonic acid (PFDS)	38.6	31.1		ng/L		81	60 - 145	4	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	26.0		ng/L		67	50 - 145	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	65.2		ng/L		87	70 - 145	8	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	65.5		ng/L		86	65 - 155	6	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	68.4		ng/L		89	60 - 150	0	30
Perfluorooctanesulfonamide (PFOSA)	40.0	37.3		ng/L		93	70 - 145	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	35.0		ng/L		87	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	35.6		ng/L		89	65 - 145	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	31.7		ng/L		79	50 - 140	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	35.5		ng/L		89	70 - 145	5	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	168		ng/L		84	70 - 145	12	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	180		ng/L		90	70 - 135	13	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	25.2		ng/L		84	70 - 140	9	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	33.0		ng/L		87	65 - 145	5	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	37.2		ng/L		93	55 - 140	8	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	35.1		ng/L		88	60 - 150	9	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-663812/11-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 663812

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	32.6		ng/L		82	50 - 150	7	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.9		ng/L		83	70 - 155	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	31.9		ng/L		85	55 - 160	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	25.5		ng/L		72	70 - 140	10	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	66.6		ng/L		83	65 - 130	3	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	149		ng/L		74	70 - 135	1	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	142		ng/L		71	50 - 145	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*94.6*		*5 - 130*
13C5 PFPeA	*96.9*		*40 - 130*
13C5 PFHxA	*98.4*		*40 - 130*
13C4 PFHpA	*93.4*		*40 - 130*
13C8 PFOA	*92.0*		*40 - 130*
13C9 PFNA	*88.6*		*40 - 130*
13C6 PFDA	*90.9*		*40 - 130*
13C7 PFUnA	*92.2*		*30 - 130*
13C2 PFTeDA	*75.3*		*10 - 130*
13C3 PFBS	*81.4*		*40 - 135*
13C3 PFHxS	*91.7*		*40 - 130*
13C8 PFOS	*92.5*		*40 - 130*
13C8 FOSA	*84.6*		*40 - 130*
d3-NMeFOSAA	*111*		*40 - 170*
d5-NEtFOSAA	*93.6*		*25 - 135*
13C2 4:2 FTS	*93.6*		*40 - 200*
13C2 6:2 FTS	*92.2*		*40 - 200*
13C2 8:2 FTS	*85.7*		*40 - 300*
13C3 HFPO-DA	*96.3*		*40 - 130*
d7-N-MeFOSE-M	*81.2*		*10 - 130*
d9-N-EtFOSE-M	*73.9*		*10 - 130*
d5-NEtPFOSA	*77.7*		*10 - 130*
d3-NMePFOSA	*75.9*		*10 - 130*
13C2 PFDoA	*92.0*		*10 - 130*

Lab Sample ID: LLCS 410-663812/12-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	6.52		ng/L		82	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	3.02		ng/L		75	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.22		ng/L		81	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-663812/12-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	2.93		ng/L		73	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.43		ng/L		86	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.01		ng/L		75	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	2.80		ng/L		70	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.82		ng/L		96	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.21		ng/L		80	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.39		ng/L		85	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	2.97		ng/L		74	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.81		ng/L		79	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.57		ng/L		95	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	2.95		ng/L		81	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.27		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.51		ng/L		94	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.03		ng/L		79	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.04		ng/L		79	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.47		ng/L		64	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.45		ng/L		86	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	6.30		ng/L		83	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.02		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.48		ng/L		87	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.07		ng/L		77	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.38		ng/L		85	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	2.98		ng/L		75	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	2.93		ng/L		73	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	16.3		ng/L		81	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	15.4		ng/L		77	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.85		ng/L		95	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	2.91		ng/L		77	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.16		ng/L		79	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-663812/12-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.02		ng/L		76	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	2.63		ng/L		66	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	2.76		ng/L		74	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.82		ng/L		75	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	2.50		ng/L		70	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	5.42		ng/L		68	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	13.3	*-	ng/L		66	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	13.8		ng/L		69	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*111*		*5 - 130*
13C5 PFPeA	*116*		*40 - 130*
13C5 PFHxA	*112*		*40 - 130*
13C4 PFHpA	*108*		*40 - 130*
13C8 PFOA	*98.3*		*40 - 130*
13C9 PFNA	*103*		*40 - 130*
13C6 PFDA	*96.7*		*40 - 130*
13C7 PFUnA	*88.5*		*30 - 130*
13C2 PFTeDA	*75.9*		*10 - 130*
13C3 PFBS	*102*		*40 - 135*
13C3 PFHxS	*104*		*40 - 130*
13C8 PFOS	*101*		*40 - 130*
13C8 FOSA	*95.1*		*40 - 130*
d3-NMeFOSAA	*115*		*40 - 170*
d5-NEtFOSAA	*105*		*25 - 135*
13C2 4:2 FTS	*114*		*40 - 200*
13C2 6:2 FTS	*123*		*40 - 200*
13C2 8:2 FTS	*105*		*40 - 300*
13C3 HFPO-DA	*107*		*40 - 130*
d7-N-MeFOSE-M	*80.9*		*10 - 130*
d9-N-EtFOSE-M	*75.6*		*10 - 130*
d5-NEtPFOSA	*81.8*		*10 - 130*
d3-NMePFOSA	*84.7*		*10 - 130*
13C2 PFDoA	*91.0*		*10 - 130*

LCMS

Prep Batch: 663812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-12	DC340005-MW-1	Total/NA	Water	1633A	
410-227544-13	DC340005-MW-2	Total/NA	Water	1633A	
410-227544-14	DC340005-DUP-1	Total/NA	Water	1633A	
410-227544-16	DC340005-EB	Total/NA	Water	1633A	
410-227544-17	DC340005-FB	Total/NA	Water	1633A	
MB 410-663812/9-A	Method Blank	Total/NA	Water	1633A	
LCS 410-663812/10-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-663812/11-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-663812/12-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 664775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-12	DC340005-MW-1	Total/NA	Water	1633A	663812
410-227544-13	DC340005-MW-2	Total/NA	Water	1633A	663812
410-227544-14	DC340005-DUP-1	Total/NA	Water	1633A	663812
410-227544-16	DC340005-EB	Total/NA	Water	1633A	663812
410-227544-17	DC340005-FB	Total/NA	Water	1633A	663812
MB 410-663812/9-A	Method Blank	Total/NA	Water	1633A	663812
LCSD 410-663812/11-A	Lab Control Sample Dup	Total/NA	Water	1633A	663812

Analysis Batch: 667308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-663812/10-A	Lab Control Sample	Total/NA	Water	1633A	663812
LLCS 410-663812/12-A	Lab Control Sample	Total/NA	Water	1633A	663812

Prep Batch: 668147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-12	DC340005-MW-1	Post-Treatment	Water	TOP Post Prep	
410-227544-13	DC340005-MW-2	Post-Treatment	Water	TOP Post Prep	
MB 410-668147/1-A	Method Blank	Post-Treatment	Water	TOP Post Prep	
LCS 410-668147/2-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	
LCSD 410-668147/3-A	Lab Control Sample Dup	Post-Treatment	Water	TOP Post Prep	
LLCS 410-668147/4-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	

Analysis Batch: 670196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-12	DC340005-MW-1	Post-Treatment	Water	1633 TOPS	668147
410-227544-13	DC340005-MW-2	Post-Treatment	Water	1633 TOPS	668147
MB 410-668147/1-A	Method Blank	Post-Treatment	Water	1633 TOPS	668147
LCS 410-668147/2-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	668147
LCSD 410-668147/3-A	Lab Control Sample Dup	Post-Treatment	Water	1633 TOPS	668147
LLCS 410-668147/4-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	668147

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-227544-2
Project/Site: $2.75 Cleaners (DC340005)

Client Sample ID: DC340005-MW-1
Lab Sample ID: 410-227544-12
Date Collected: 06/12/25 14:15
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			668147	S7AC	ELLE	07/08/25 09:23
Post-Treatment	Analysis	1633 TOPS		1	670196	XBL5	ELLE	07/11/25 05:26
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 21:52

Client Sample ID: DC340005-MW-2
Lab Sample ID: 410-227544-13
Date Collected: 06/12/25 15:00
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			668147	S7AC	ELLE	07/08/25 09:23
Post-Treatment	Analysis	1633 TOPS		1	670196	XBL5	ELLE	07/11/25 05:39
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 22:05

Client Sample ID: DC340005-DUP-1
Lab Sample ID: 410-227544-14
Date Collected: 06/12/25 00:00
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 22:19

Client Sample ID: DC340005-EB
Lab Sample ID: 410-227544-16
Date Collected: 06/12/25 15:25
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 22:32

Client Sample ID: DC340005-FB
Lab Sample ID: 410-227544-17
Date Collected: 06/12/25 15:20
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 22:46

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-227544-2
Project/Site: $2.75 Cleaners (DC340005)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	09-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633 TOPS	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633 TOPS	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633 TOPS	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633 TOPS	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633 TOPS	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633 TOPS	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)

Client: Hart & Hickman, PC
Job ID: 410-227544-2
Project/Site: $2.75 Cleaners (DC340005)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
1633 TOPS	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
1633 TOPS	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
1633 TOPS	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
1633 TOPS	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)

Client: Hart & Hickman, PC
Job ID: 410-227544-2
Project/Site: $2.75 Cleaners (DC340005)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-227544-2
Project/Site: $2.75 Cleaners (DC340005)

Method	Method Description	Protocol	Laboratory
1633 TOPS	Fluorinated Alkyl Substances	EPA	ELLE
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-227544-12	DC340005-MW-1	Water	06/12/25 14:15	06/14/25 10:50	North Carolina
410-227544-13	DC340005-MW-2	Water	06/12/25 15:00	06/14/25 10:50	North Carolina
410-227544-14	DC340005-DUP-1	Water	06/12/25 00:00	06/14/25 10:50	North Carolina
410-227544-16	DC340005-EB	Water	06/12/25 15:25	06/14/25 10:50	North Carolina
410-227544-17	DC340005-FB	Water	06/12/25 15:20	06/14/25 10:50	North Carolina



410-227544 Chain of Custody

Environme

Chain of Custody Record

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	Sampler: Jacob Sand	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159585-44129.1
Sam Martin	Phone: 704 936 6058	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 2
Company: Hart & Hickman, PC	PWSID	Analysis Requested		Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			Preservation Codes: N - None
City: Charlotte	TAT Requested (days): Standard H+H (10-Day)			
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DS0.PFAS			
Email: smartin@harthickman.com	WO #:			Other:
Project Name: S2.75 Cleaners (DC340005)	Project #: 41025876			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - List of 40 based on EPA method	1633_Final, 1633_TOPS (Past)	537 Mod.	Total Number of containers	Special Instructions/Note:
Preservation Code:					X	X	N	N		X	
DC340005-SS	6/12/25	1130	G	Water	N	N		X	X	3	Please report
DC340005-WW-PRE		1053		Water				X	X	3	J flags + report non-
DC340005-WW-POST		1225		Water				X	X	3	detects as < MDLs
DC340005-MIST-PRE		1110		Water				X	X	3	EDD formats:
DC340005-MIST-POST		1115		Water				X	X	3	H+H, NCDEQ, DSCA
DC340005-SPOT		1325		Water				X	X	3	Sample -SPOT, -SS
DC340005-SPOT-2		1330		Water				X	X	3	Contains high
DC340005-DET		1300		Water				X	X	3	levels of TCE/PCE
DC340005-DET-2		1250		Water				X	X	3	Solvent.
DC340005-DET-3		1310		Water				X	X	3	
DC340005-WW-BASIN		1210		Water				X	X	3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	6/12/25/1800	H+H		6-13-25 1122	
Relinquished by:	6-13-25 1630				
Relinquished by:				06/14/25 1050	

Custody Seals Intact: ☒ Yes Δ No | Custody Seal No.: 2534685

Cooler Temperature(s) °C and Other Remarks: R: 2.8 C: 2.8

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Jacob Sand	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159585-44129.2
Client Contact: Sam Martin	Phone: 704 936 6058	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 2 of 2
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			Preservation Codes: N - None
City: Charlotte	TAT Requested (days): Standard H+H (10-day)			
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DS0 PFAS			
Email: smartin@harthickman.com	WO #:			
Project Name: $2.75 Cleaners (DC340005)	Project #: 41025876			Other:
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - List of 40 based on EPA method	1633_Final, 1633_TOPS (Post)	537 Mod	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N		X	
DC340005 – MW-1	6/12/25	1415	G	Water	N	N	X	X		3	* Please report J Flags
DC340005 – MW-2		1500		Water			X	X		3	and report to LMDLs.
DC340005 – DUP-1		—		Water			X	[redacted]		2	*EDD formats: H+H,
DC340005 – DUP-2		—		Water					X	2	NCDEQ, DSCA
DC340005 – EB		1525		Water			X			2	
DC340005 – FB		1520		Waste			X			2	
				Waste							
				Waste							
				Waste							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 6/12/25 / 1800	Company: H+H	Received by:	Date/Time: 6.13.25 1127	Company
Relinquished by:	Date/Time: 6.13.25 1630	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/14/25 1050	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 2534685	Cooler Temperature(s) °C and Other Remarks: R: 2.8 C: 2.8

Ver: 10/10/2024

eurofins Environment Testing America	Eurofins Document Reference : S-SA-FRM28783	Revision: 2	Historical Reference: NA
	Effective date : 25 Jun 2024		Effective

Group (complete after entry):

TRIAGE EMPLOYEE INITIALS/DATE: BR 6/14/25

Source:	(FEDEX) / UPS / FIELD SAMPLER / DRIVER / FRONT DESK
Shipping Container Sealed:	(YES) NO
Custody Seal Present * :	(YES) NO
Ice Present:	(YES) NO
Ice Type:	BLUE ICE / DRY ICE / (ICE) / MELTED ICE / NONE
Packing Type:	BUBBLE WRAP / CARDBOARD / OTHER / STYROFOAM / VERMICULITE / (NONE)

Thermometer ID: DT148/DP415 / 240353699 / DT42-03 / DT42-04 / 58630973WS / 58210419WS / 56740180WS / (61420201WS)

Temperature**	Was Container Frozen?:	Container Matrix:
R:2.8 C:2.8	YES (NO)	(WATER) / SOLID / TISSUE

WV requires that all bottle temperatures must be taken

Tracking number: 7799 3195 7776

Discrepancies/Comments

* Custody seal was intact unless otherwise noted in the discrepancy section
** All temperatures are uncorrected in °C. Temperature correction factors are controlled and documented in LIMS

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-227544-2

Login Number: 227544
List Number: 1
Creator: McDonald, Teigan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 12/9/2025 2:37:14 PM Revision 1

JOB DESCRIPTION

$2.75 Cleaners (DC340005)

JOB NUMBER

410-227544-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

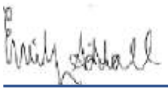
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
12/9/2025 2:37:14 PM
Revision 1

Authorized for release by
Emily Siddall, Principal Project Manager
Emily.Siddall@et.eurofinsus.com
Designee for
David Barnhart, Senior Project Manager
David.Barnhart@et.eurofinsus.com
(717)656-2300

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-227544-1

REVISION

The report being provided is a revision of the original report sent on 7/23/2025. The report (revision 1) is being revised due to additional changes needed for the DS0.PFAS lab reports and EDDs.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 6/14/2025 10:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C.

Receipt Exceptions
received 3 of sample DC340005-DUP 1, COC states 2

DC340005-SS (410-227544-1), DC340005-WW-PRE (410-227544-2), DC340005-WW-POST (410-227544-3), DC340005-MIST-PRE (410-227544-4), DC340005-MIST-POST (410-227544-5), DC340005-SPOT (410-227544-6), DC340005-SPOT-2 (410-227544-7), DC340005-DET (410-227544-8), DC340005-DET-2 (410-227544-9), DC340005-DET-3 (410-227544-10), DC340005-WW-BASIN (410-227544-11), DC340005-MW-1 (410-227544-12), DC340005-MW-2 (410-227544-13), DC340005-DUP-1 (410-227544-14), DC340005-DUP-2 (410-227544-15), DC340005-EB (410-227544-16) and DC340005-FB (410-227544-17)

PFAS
Method 537_IDA_TOPS - Post-Treatment: Target analyte(s) Perfluorodecanoic acid (PFDA) were detected in the method blank associated with the following sample: DC340005-WW-BASIN (410-227544-11). The data is reported.

Method 537_IDA_TOPS - Post-Treatment: The labeled isotope d3-NMeFOSAA > was detected in the oxidation blank associated with the following samples: DC340005-SS (410-227544-1), DC340005-WW-PRE (410-227544-2), DC340005-WW-POST (410-227544-3), DC340005-MIST-PRE (410-227544-4), DC340005-MIST-POST (410-227544-5), DC340005-SPOT (410-227544-6), DC340005-SPOT-2 (410-227544-7), DC340005-DET (410-227544-8) and DC340005-DET-2 (410-227544-9). The following action was taken: This sample(s) was re-extracted within of the required holding time and labeled isotope was again detected in the re-extracted oxidation blank.

Method 537_IDA_TOPS - Post-Treatment: The recovery for target analyte 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) and 3-Perfluoropropylpropanoic acid (3:3 FTCA) is outside the QC acceptance limits in the closing continuing calibration verification standard due to the matrix of the sample.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope(s) 13C9 PFNA, d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS in the following sample: DC340005-WW-PRE (410-227544-2) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope(s) 13C9 PFNA, d5-NEtFOSAA, M2-6:2 FTS, M2-8:2 FTS, d5-NEtPFOSA and d3-NMePFOSA in the following sample: DC340005-WW-POST (410-227544-3) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope(s) 13C9 PFNA in the following sample: DC340005-MIST-PRE (410-227544-4) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope(s) 13C9 PFNA in the following sample: DC340005-MIST-POST (410-227544-5) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

Method 537_IDA_TOPS - Post-Treatment: The sample injection standard peak areas in the following sample: DC340005-SPOT-2 (410-227544-7) are outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Method 537_IDA_TOPS - Post-Treatment: The sample injection standard peak areas in the following sample: DC340005-DET (410-227544-8) are outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope(s) M2-6:2 FTS and M2-8:2 FTS in the following sample: DC340005-DET-2 (410-227544-9) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

Method 537_IDA_TOPS - Post-Treatment: The labeled isotope d3-NMeFOSAA > was detected in the oxidation blank associated with the following sample: DC340005-DET-3 (410-227544-10). The following action was taken: This sample(s) was re-extracted within of the required holding time and labeled isotope was again detected in the re-extracted oxidation blank.

Method 537_IDA_TOPS - Post-Treatment: The recovery for target analyte 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS) and 3-Perfluoropropylpropanoic acid (3:3 FTCA) is outside the QC acceptance limits in the closing continuing calibration verification standard due to the matrix of the sample.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope(s) 13C9 PFNA, M2-6:2 FTS and M2-8:2 FTS in the following sample: DC340005-DET-3 (410-227544-10) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

Method 537_IDA_TOPS - Post-Treatment: The labeled isotope d3-NMeFOSAA > was detected in the oxidation blank associated with the following sample: DC340005-SS (410-227544-1). The following action was taken: This sample(s) was re-extracted within of the required holding time and labeled isotope was again detected in the re-extracted oxidation blank.

Method PFC_IDA: Isotope dilution analyte (IDA) d3-NMePFOSA and d5-NEtPFOSA recoveries were outside QC acceptance criteria in in the method blank/laboratory control spike samples associated with the following samples: DC340005-WW-PRE (410-227544-2), DC340005-WW-POST (410-227544-3), DC340005-MIST-PRE (410-227544-4), DC340005-MIST-POST (410-227544-5), DC340005-SPOT (410-227544-6) and DC340005-DET-2 (410-227544-9). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: The recovery for target analyte 3-Perfluoropentylpropanoic acid (5:3 FTCA) is outside the QC acceptance limits in the opening continuing calibration verification standard. Since the result is high and target is not detected in the following samples: DC340005-WW-PRE (410-227544-2), DC340005-WW-POST (410-227544-3), DC340005-MIST-PRE (410-227544-4), DC340005-MIST-POST (410-227544-5), DC340005-SPOT (410-227544-6), DC340005-SPOT-2 (410-227544-7), DC340005-DET (410-227544-8) and DC340005-DET-2 (410-227544-9), the data is reported.

Method PFC_IDA: The recovery for labeled isotope: 13C2-8:2 FTS, d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the closing continuing calibration verification standard associated with the following samples: DC340005-WW-PRE (410-227544-2), DC340005-WW-POST (410-227544-3), DC340005-MIST-PRE (410-227544-4), DC340005-MIST-POST (410-227544-5), DC340005-SPOT (410-227544-6) and DC340005-DET-2 (410-227544-9) due to the matrix of the sample. The data is reported.

Method PFC_IDA: The recovery for the labeled isotope: 13C2-8:2 FTS and d5-NEtFOSAA in the following sample: DC340005-WW-PRE (410-227544-2) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d5-NEtPFOSA recoveries were outside QC acceptance criteria in sample DC340005-WW-POST (410-227544-3). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d3-NMePFOSA and d5-NEtPFOSA recoveries were outside QC acceptance criteria in sample DC340005-MIST-PRE (410-227544-4). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: The recovery for the labeled isotope: 13C2-8:2 FTS and d5-NEtFOSAA in the following sample: DC340005-DET-2 (410-227544-9) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d3-NMePFOSA and d5-NEtPFOSA recoveries were outside QC acceptance criteria in in the method blank/laboratory control spike samples associated with the following samples: DC340005-DET-3 (410-227544-10), DC340005-WW-BASIN (410-227544-11) and DC340005-DUP-2 (410-227544-15). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: The recovery for labeled isotope(s): 13C2-8:2 FTS, d3-NMePFOSA and d5-NEtPFOSA is outside the QC acceptance limits and biased high in the opening continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following samples: DC340005-DET-3 (410-227544-10), DC340005-WW-BASIN (410-227544-11) and DC340005-DUP-2 (410-227544-15), the data is reported.

Method PFC_IDA: The recovery for the labeled isotope: 13C2-8:2 FTS in the following sample: DC340005-DET-3 (410-227544-10) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d3-NMePFOSA and d5-NEtPFOSA recoveries were outside QC acceptance criteria in in the method blank/laboratory control spike sample associated with the following sample: DC340005-WW-BASIN (410-227544-11). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d5-NEtPFOSA recoveries were outside QC acceptance criteria in in the method blank/laboratory control spike sample associated with the following sample: DC340005-DUP-2 (410-227544-15). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: The recovery for the labeled isotope(s) 13C2-8:2 FTS, d5-NEtFOSAA and 13C7-PFUnA in the following sample: DC340005-DET (410-227544-8) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted outside of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

Method PFC_IDA: The recovery for the labeled isotope(s) 13C2-4:2 FTS, 13C2-6:2 FTS, 13C3-HFPO-DA, 13C3-PFBS, 13C4-PFBA, 13C4-PFHpA, 13C5-PFPeA, 13C8-PFOA, d9-N-EtFOSE-M, 13C5-PFHxA, 13C6-PFDA and 13C-6:2 FTCA in the following sample: DC340005-SPOT-2 (410-227544-7) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted outside of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

Method PFC_IDA: The recovery for labeled isotope: 13C2-8:2 FTS and d5-NEtFOSAA is outside the QC acceptance limits in the closing continuing calibration verification standard associated with the following sample: DC340005-DET (410-227544-8) due to the matrix of the sample. The data is reported.

Method PFC_IDA: The recovery for the labeled isotope(s) d3-NMePFOSA and d5-NEtPFOSA in the method blank/laboratory control spike samples associated with the following samples: DC340005-SPOT-2 (410-227544-7) and DC340005-DET (410-227544-8) is outside the QC acceptance limits. The following action was taken: This sample(s) was re-extracted outside the required holding time and the recovery for the labeled isotope(s) in the re-extracted method blank/laboratory control spike sample(s) is again outside the QC acceptance limits.

Method PFC_IDA: The sample injection standard peak areas in the following sample: DC340005-DET (410-227544-8) are outside of the QC limits for both the initial injection and the re-extraction. The values here are from the initial injection of the sample.

Method PFC_IDA: The recovery for labeled isotope: d3-NMePFOSA is outside the QC acceptance limits in the closing continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following sample: DC340005-DET (410-227544-8), the data is reported.

Method PFC_IDA: The recovery for labeled isotope: 13C2-8:2 FTS, d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the closing continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following sample: DC340005-SPOT-2 (410-227544-7), the data is reported.

Method PFC_IDA: The recovery for the labeled isotope(s) d3-NMePFOSA and d5-NEtPFOSA in the method blank/laboratory control spike sample associated with the following sample: DC340005-SS (410-227544-1) is outside the QC acceptance limits. The following action was taken: This sample(s) was re-extracted outside the required holding time and the recovery for the labeled isotope(s) in the re-extracted method blank/laboratory control spike sample(s) is again outside the QC acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-SS

Lab Sample ID: 410-227544-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6100		1500	490	ng/L	1		537 IDA	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	370	J ^2	1500	250	ng/L	1		537 IDA	Total/NA
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	23000		1500	490	ng/L	1		537 IDA	Total/NA
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12000		1500	490	ng/L	1		537 IDA	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1800		980	250	ng/L	1		537 IDA	Total/NA
Perfluorobutanoic acid (PFBA)	16000		2500	980	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid (PFDA)	5100		980	250	ng/L	1		537 IDA	Total/NA
Perfluorododecanoic acid (PFDoA)	2100		980	250	ng/L	1		537 IDA	Total/NA
Perfluoroheptanoic acid (PFHpA)	3100		980	250	ng/L	1		537 IDA	Total/NA
Perfluorohexanoic acid (PFHxA)	57000		980	440	ng/L	1		537 IDA	Total/NA
Perfluorononanoic acid (PFNA)	1000	I	980	250	ng/L	1		537 IDA	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1500		980	490	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	25000		980	250	ng/L	1		537 IDA	Total/NA
Perfluoropentanoic acid (PFPeA)	6700		980	250	ng/L	1		537 IDA	Total/NA
Perfluorotetradecanoic acid (PFTeDA)	710	J I	980	250	ng/L	1		537 IDA	Total/NA
Perfluoroundecanoic acid (PFUnA)	370	J	980	250	ng/L	1		537 IDA	Total/NA
Perfluorobutanoic acid (PFBA)	57000	B	1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoropentanoic acid (PFPeA)	45000		1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorohexanoic acid (PFHxA)	160000	I	1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	13000	I B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	120000	I B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	6100	I	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	47000	I	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoroundecanoic acid (PFUnA)	2600	I	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorododecanoic acid (PFDoA)	21000	I	1000	200	ng/L	1		537 TOP	Post-Treatment
Perfluorotridecanoic acid (PFTrDA)	1600	I	1000	200	ng/L	1		537 TOP	Post-Treatment
Perfluorotetradecanoic acid (PFTeDA)	8200	I	1000	200	ng/L	1		537 TOP	Post-Treatment
Perfluoropentanesulfonic acid (PFPeS)	1700	I	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorohexanesulfonic acid (PFHxS)	17000	I	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanesulfonic acid (PFHpS)	180	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	23000		1000	250	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanesulfonic acid (PFDS)	270	J I	1000	150	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2200		1000	550	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	26000		1000	300	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client Sample ID: DC340005-SS (Continued) — Lab Sample ID: 410-227544-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonamide (PFOSA)	1300		1000	150	ng/L	1		537 TOP	Post-Treatment
N-methylperfluorooctane sulfonamide (NMeFOSA)	3400		1000	350	ng/L	1		537 TOP	Post-Treatment
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6500		1000	200	ng/L	1		537 TOP	Post-Treatment
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2700	I	1000	200	ng/L	1		537 TOP	Post-Treatment
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4100		1000	250	ng/L	1		537 TOP	Post-Treatment
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3000		1000	800	ng/L	1		537 TOP	Post-Treatment
3-Perfluoropentylpropanoic acid (5:3 FTCA)	420	J	1000	250	ng/L	1		537 TOP	Post-Treatment
Perfluorobutanesulfonic acid (PFBS) - DL	360000		10000	1500	ng/L	10		537 TOP	Post-Treatment
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE) - DL	160000		10000	2000	ng/L	10		537 TOP	Post-Treatment
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE) - DL	420000		10000	2000	ng/L	10		537 TOP	Post-Treatment

Client Sample ID: DC340005-WW-PRE — Lab Sample ID: 410-227544-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	170	J I	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	150	J	1000	150	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2000		1000	550	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC340005-WW-POST — Lab Sample ID: 410-227544-3

No Detections.

Client Sample ID: DC340005-MIST-PRE — Lab Sample ID: 410-227544-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	710	J	940	420	ng/L	1		537 IDA	Total/NA
Perfluorooctanesulfonamide (PFOSA)	660	J	940	330	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	570	J	940	240	ng/L	1		537 IDA	Total/NA
Perfluorobutanoic acid (PFBA)	550	J	1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoropentanoic acid (PFPeA)	160	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorohexanoic acid (PFHxA)	530	J	1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	180	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	380	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	160	J	1000	150	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-MIST-POST — Lab Sample ID: 410-227544-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	310	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	380	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	330	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	120	J	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	180	J	1000	150	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC340005-SPOT — Lab Sample ID: 410-227544-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2600		2400	970	ng/L	1		537 IDA	Total/NA
Perfluoroheptanoic acid (PFHpA)	310	J	970	240	ng/L	1		537 IDA	Total/NA
Perfluorohexanoic acid (PFHxA)	470	J	970	440	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	340	J	970	240	ng/L	1		537 IDA	Total/NA
Perfluoropentanoic acid (PFPeA)	560	J	970	240	ng/L	1		537 IDA	Total/NA
Perfluorobutanoic acid (PFBA)	42000		1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoropentanoic acid (PFPeA)	460	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	290	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	330	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	190	J	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	230	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoro-3-methoxypropanoic acid (PFMPA)	280	J	1000	150	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC340005-SPOT-2 — Lab Sample ID: 410-227544-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6800		1500	500	ng/L	1		537 IDA	Total/NA
Perfluoroheptanoic acid (PFHpA)	510	J	990	250	ng/L	1		537 IDA	Total/NA

Client Sample ID: DC340005-DET — Lab Sample ID: 410-227544-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1200	J cn	1400	480	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid (PFDA)	10000	cn	950	240	ng/L	1		537 IDA	Total/NA
Perfluorododecanoic acid (PFDoA)	4800	cn	950	240	ng/L	1		537 IDA	Total/NA
Perfluoroheptanoic acid (PFHpA)	1500	cn	950	240	ng/L	1		537 IDA	Total/NA
Perfluorohexanoic acid (PFHxA)	33000	cn	950	430	ng/L	1		537 IDA	Total/NA
Perfluorononanoic acid (PFNA)	1500	cn	950	240	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	17000	cn	950	240	ng/L	1		537 IDA	Total/NA
Perfluorotetradecanoic acid (PFTeDA)	1500	cn	950	240	ng/L	1		537 IDA	Total/NA
Perfluoropentanoic acid (PFPeA)	1500	cn	1000	150	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client Sample ID: DC340005-DET (Continued) — Lab Sample ID: 410-227544-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	24000	cn	1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	13000	cn	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	1000	cn	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	5700	cn	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoroundecanoic acid (PFUnA)	45000	cn	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorododecanoic acid (PFDoA)	2500	cn	1000	200	ng/L	1		537 TOP	Post-Treatment
Perfluorotetradecanoic acid (PFTeDA)	560	J cn	1000	200	ng/L	1		537 TOP	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	19000	cn	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorododecanesulfonic acid (PFDoS)	320	J cn	1000	150	ng/L	1		537 TOP	Post-Treatment
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	7400	cn	1000	200	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC340005-DET-2 — Lab Sample ID: 410-227544-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonamide (PFOSA)	1500		940	330	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	3100		940	240	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	1700		1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	170	J	1000	150	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC340005-DET-3 — Lab Sample ID: 410-227544-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	150	J	1000	150	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC340005-WW-BASIN — Lab Sample ID: 410-227544-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	610	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorohexanoic acid (PFHxA)	990	J	1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	1200		1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	760	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	290	J I	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	350	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC340005-DUP-2 — Lab Sample ID: 410-227544-15

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: DC340005-SS
Lab Sample ID: 410-227544-1
Date Collected: 06/12/25 11:30
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		06/29/25 11:03	07/18/25 16:52	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**6100**		1500	490	ng/L		06/29/25 11:03	07/18/25 16:52	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		06/29/25 11:03	07/18/25 16:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**370**	**J ^2**	1500	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	490	ng/L		06/29/25 11:03	07/18/25 16:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	**23000**		1500	490	ng/L		06/29/25 11:03	07/18/25 16:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		980	290	ng/L		06/29/25 11:03	07/18/25 16:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		06/29/25 11:03	07/18/25 16:52	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	**12000**		1500	490	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorobutanesulfonic acid (PFBS)	**1800**		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorobutanoic acid (PFBA)	**16000**		2500	980	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorodecanoic acid (PFDA)	**5100**		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorododecanoic acid (PFDoA)	**2100**		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluoroheptanoic acid (PFHpA)	**3100**		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorohexanoic acid (PFHxA)	**57000**		980	440	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorononanesulfonic acid (PFNS)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorononanoic acid (PFNA)	**1000**	**I**	980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		980	340	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorooctanesulfonic acid (PFOS)	**1500**		980	490	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorooctanoic acid (PFOA)	**25000**		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluoropentanoic acid (PFPeA)	**6700**		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorotetradecanoic acid (PFTeDA)	**710**	**J I**	980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluoroundecanoic acid (PFUnA)	**370**	**J**	980	250	ng/L		06/29/25 11:03	07/18/25 16:52	1

Client Sample ID: DC340005-SS
Lab Sample ID: 410-227544-1
Date Collected: 06/12/25 11:30
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		980	98	ng/L		06/29/25 11:03	07/18/25 16:52	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		980	150	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		980	98	ng/L		06/29/25 11:03	07/18/25 16:52	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		980	150	ng/L		06/29/25 11:03	07/18/25 16:52	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		980	98	ng/L		06/29/25 11:03	07/18/25 16:52	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		980	98	ng/L		06/29/25 11:03	07/18/25 16:52	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		980	98	ng/L		06/29/25 11:03	07/18/25 16:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*80*		*19 - 191*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C2-6:2 FTS	*144*		*13 - 200*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C2-8:2 FTS	*189*		*10 - 200*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C2-PFTeDA	*23*		*10 - 186*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C3-HFPO-DA	*50*		*10 - 140*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C3-PFBS	*63*		*24 - 176*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C4-PFBA	*55*		*26 - 162*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C4-PFHpA	*59*		*10 - 193*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C5-PFPeA	*56*		*15 - 162*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C8-PFOA	*53*		*27 - 160*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C8-PFOS	*62*		*22 - 172*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
d3-NMeFOSAA	*90*		*10 - 198*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
d5-NEtFOSAA	*84*		*10 - 200*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
d7-N-MeFOSE-M	*40*		*10 - 181*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
d9-N-EtFOSE-M	*28*		*10 - 182*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C3-PFHxS	*61*		*11 - 180*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C5-PFHxA	*43*		*10 - 176*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C6-PFDA	*57*		*19 - 168*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C7-PFUnA	*40*		*10 - 182*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
d3-NMePFOSA	*28*	*cn*	*10 - 137*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
d5-NEtPFOSA	*23*	*cn*	*10 - 130*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C8-PFOSA	*42*		*10 - 149*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C2-PFDoA	*23*		*10 - 183*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C9-PFNA	*68*		*10 - 198*	*06/29/25 11:03*	*07/18/25 16:52*	*1*
13C-6:2 FTCA	*67*		*10 - 185*	*06/29/25 11:03*	*07/18/25 16:52*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**57000**	**B**	1000	500	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluoropentanoic acid (PFPeA)	**45000**		1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorohexanoic acid (PFHxA)	**160000**	**I**	1000	500	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluoroheptanoic acid (PFHpA)	**13000**	**I B**	1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorooctanoic acid (PFOA)	**120000**	**I B**	1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorononanoic acid (PFNA)	**6100**	**I**	1000	100	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorodecanoic acid (PFDA)	**47000**	**I**	1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-SS
Date Collected: 06/12/25 11:30
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-1
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	**2600**	**I**	1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorododecanoic acid (PFDoA)	**21000**	**I**	1000	200	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorotridecanoic acid (PFTrDA)	**1600**	**I**	1000	200	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorotetradecanoic acid (PFTeDA)	**8200**	**I**	1000	200	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluoropentanesulfonic acid (PFPeS)	**1700**	**I**	1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorohexanesulfonic acid (PFHxS)	**17000**	**I**	1000	100	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluoroheptanesulfonic acid (PFHpS)	**180**	**J**	1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorooctanesulfonic acid (PFOS)	**23000**		1000	250	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorodecanesulfonic acid (PFDS)	**270**	**J I**	1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/10/25 16:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**2200**		1000	550	ng/L		07/01/25 07:12	07/10/25 16:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**26000**		1000	300	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluorooctanesulfonamide (PFOSA)	**1300**		1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	**3400**		1000	350	ng/L		07/01/25 07:12	07/10/25 16:27	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	**6500**		1000	200	ng/L		07/01/25 07:12	07/10/25 16:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**2700**	**I**	1000	200	ng/L		07/01/25 07:12	07/10/25 16:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**4100**		1000	250	ng/L		07/01/25 07:12	07/10/25 16:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	**3000**		1000	800	ng/L		07/01/25 07:12	07/10/25 16:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 16:27	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 16:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 16:27	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/10/25 16:27	1

Client Sample ID: DC340005-SS
Lab Sample ID: 410-227544-1

Date Collected: 06/12/25 11:30
Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	**420**	**J**	1000	250	ng/L		07/01/25 07:12	07/10/25 16:27	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/01/25 07:12	07/10/25 16:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77*		*10 - 168*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C5 PFPeA	*89*		*15 - 189*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C5 PFHxA	*57*		*20 - 165*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C4 PFHpA	*74*		*33 - 166*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C8 PFOA	*63*		*40 - 154*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C9 PFNA	*61*		*39 - 162*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C6 PFDA	*69*		*41 - 153*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C7 PFUnA	*41*		*35 - 161*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C2-PFDoDA	*24*		*22 - 165*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C2 PFTeDA	*31*		*17 - 156*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C3 PFBS	*114*		*27 - 200*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C3 PFHxS	*86*		*39 - 164*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C8 PFOS	*68*		*44 - 153*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C8 FOSA	*28*		*11 - 149*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
d5-NEtFOSAA	*65*		*30 - 180*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
M2-6:2 FTS	*251*	*5+	*26 - 200*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
M2-8:2 FTS	*270*	*5+	*27 - 200*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C3 HFPO-DA	*62*		*11 - 166*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
d7-N-MeFOSE-M	*26*		*10 - 154*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
d9-N-EtFOSE-M	*11*		*10 - 146*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
d5-NEtPFOSA	*9*	*5-	*10 - 130*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
d3-NMePFOSA	*20*		*10 - 130*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C-6:2 FTCA	*28*		*15 - 182*	*07/01/25 07:12*	*07/10/25 16:27*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*29*		*26 - 150*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C4 PFOA	*28*	*S1-	*45 - 147*	*07/01/25 07:12*	*07/10/25 16:27*	*1*
13C2 PFUnA	*11*		*11 - 187*	*07/01/25 07:12*	*07/10/25 16:27*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**360000**		10000	1500	ng/L		07/01/25 07:12	07/10/25 16:41	10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	**160000**		10000	2000	ng/L		07/01/25 07:12	07/10/25 16:41	10
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	**420000**		10000	2000	ng/L		07/01/25 07:12	07/10/25 16:41	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFBS	*125*		*27 - 200*	*07/01/25 07:12*	*07/10/25 16:41*	*10*
d7-N-MeFOSE-M	*157*	*5+	*10 - 154*	*07/01/25 07:12*	*07/10/25 16:41*	*10*
d9-N-EtFOSE-M	*114*		*10 - 146*	*07/01/25 07:12*	*07/10/25 16:41*	*10*

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-WW-PRE
Date Collected: 06/12/25 10:53
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-2
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		06/29/25 11:03	07/08/25 21:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 21:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 21:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		06/29/25 11:03	07/08/25 21:36	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 21:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		960	290	ng/L		06/29/25 11:03	07/08/25 21:36	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 21:36	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorobutanesulfonic acid (PFBS)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorobutanoic acid (PFBA)	ND		2400	960	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorodecanoic acid (PFDA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorododecanoic acid (PFDoA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluoroheptanoic acid (PFHpA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorohexanesulfonic acid (PFHxS)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorohexanoic acid (PFHxA)	ND		960	430	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorononanesulfonic acid (PFNS)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorononanoic acid (PFNA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorooctanesulfonamide (PFOSA)	ND		960	340	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorooctanesulfonic acid (PFOS)	ND		960	480	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorooctanoic acid (PFOA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluoropentanesulfonic acid (PFPeS)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluoropentanoic acid (PFPeA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorotetradecanoic acid (PFTeDA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluorotridecanoic acid (PFTrDA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluoroundecanoic acid (PFUnA)	ND		960	240	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		960	96	ng/L		06/29/25 11:03	07/08/25 21:36	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		960	140	ng/L		06/29/25 11:03	07/08/25 21:36	1

Client Sample ID: DC340005-WW-PRE
Lab Sample ID: 410-227544-2
Date Collected: 06/12/25 10:53
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		960	96	ng/L		06/29/25 11:03	07/08/25 21:36	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		960	140	ng/L		06/29/25 11:03	07/08/25 21:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		960	96	ng/L		06/29/25 11:03	07/08/25 21:36	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	960	96	ng/L		06/29/25 11:03	07/08/25 21:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		960	96	ng/L		06/29/25 11:03	07/08/25 21:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*113*		*19 - 191*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C2-6:2 FTS	*134*		*13 - 200*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C2-8:2 FTS	*235*	**5+ cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C2-PFTeDA	*87*		*10 - 186*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C3-HFPO-DA	*97*		*10 - 140*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C3-PFBS	*121*		*24 - 176*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C4-PFBA	*103*		*26 - 162*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C4-PFHpA	*109*		*10 - 193*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C5-PFPeA	*110*		*15 - 162*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C8-PFOA	*94*		*27 - 160*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C8-PFOS	*112*		*22 - 172*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
d3-NMeFOSAA	*152*	*cn*	*10 - 198*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
d5-NEtFOSAA	*201*	**5+ cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
d7-N-MeFOSE-M	*42*		*10 - 181*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
d9-N-EtFOSE-M	*40*		*10 - 182*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C3-PFHxS	*112*		*11 - 180*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C5-PFHxA	*112*		*10 - 176*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C6-PFDA	*108*		*19 - 168*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C7-PFUnA	*106*		*10 - 182*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
d3-NMePFOSA	*13*	*cn*	*10 - 137*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
d5-NEtPFOSA	*12*	*cn*	*10 - 130*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C8-PFOSA	*84*		*10 - 149*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C2-PFDoA	*103*		*10 - 183*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C9-PFNA	*108*		*10 - 198*	*06/29/25 11:03*	*07/08/25 21:36*	*1*
13C-6:2 FTCA	*98*		*10 - 185*	*06/29/25 11:03*	*07/08/25 21:36*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorooctanoic acid (PFOA)	**170**	**J I**	1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorodecanoic acid (PFDA)	**150**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-WW-PRE
Date Collected: 06/12/25 10:53
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-2
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 20:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**2000**		1000	550	ng/L		07/01/25 07:12	07/05/25 20:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/01/25 07:12	07/05/25 20:27	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:27	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:27	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/01/25 07:12	07/05/25 20:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:27	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:27	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 20:27	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:27	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/01/25 07:12	07/05/25 20:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*147*		*10 - 168*	*07/01/25 07:12*	*07/05/25 20:27*	*1*
13C5 PFPeA	*153*		*15 - 189*	*07/01/25 07:12*	*07/05/25 20:27*	*1*
13C5 PFHxA	*108*		*20 - 165*	*07/01/25 07:12*	*07/05/25 20:27*	*1*

Client Sample ID: DC340005-WW-PRE
Lab Sample ID: 410-227544-2
Date Collected: 06/12/25 10:53
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	125		33 - 166	07/01/25 07:12	07/05/25 20:27	1
13C8 PFOA	138		40 - 154	07/01/25 07:12	07/05/25 20:27	1
13C9 PFNA	166	*5+ cn	39 - 162	07/01/25 07:12	07/05/25 20:27	1
13C6 PFDA	147		41 - 153	07/01/25 07:12	07/05/25 20:27	1
13C7 PFUnA	124		35 - 161	07/01/25 07:12	07/05/25 20:27	1
13C2-PFDoDA	108		22 - 165	07/01/25 07:12	07/05/25 20:27	1
13C2 PFTeDA	121		17 - 156	07/01/25 07:12	07/05/25 20:27	1
13C3 PFBS	148		27 - 200	07/01/25 07:12	07/05/25 20:27	1
13C3 PFHxS	136		39 - 164	07/01/25 07:12	07/05/25 20:27	1
13C8 PFOS	148		44 - 153	07/01/25 07:12	07/05/25 20:27	1
13C8 FOSA	109		11 - 149	07/01/25 07:12	07/05/25 20:27	1
d5-NEtFOSAA	271	*5+ cn	30 - 180	07/01/25 07:12	07/05/25 20:27	1
M2-6:2 FTS	233	*5+ cn	26 - 200	07/01/25 07:12	07/05/25 20:27	1
M2-8:2 FTS	469	*5+ cn	27 - 200	07/01/25 07:12	07/05/25 20:27	1
13C3 HFPO-DA	117		11 - 166	07/01/25 07:12	07/05/25 20:27	1
d7-N-MeFOSE-M	93		10 - 154	07/01/25 07:12	07/05/25 20:27	1
d9-N-EtFOSE-M	90		10 - 146	07/01/25 07:12	07/05/25 20:27	1
d5-NEtPFOSA	64		10 - 130	07/01/25 07:12	07/05/25 20:27	1
d3-NMePFOSA	72		10 - 130	07/01/25 07:12	07/05/25 20:27	1
13C-6:2 FTCA	60		15 - 182	07/01/25 07:12	07/05/25 20:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	52		26 - 150	07/01/25 07:12	07/05/25 20:27	1
13C4 PFOA	67		45 - 147	07/01/25 07:12	07/05/25 20:27	1
13C2 PFUnA	54		11 - 187	07/01/25 07:12	07/05/25 20:27	1

Client Sample ID: DC340005-WW-POST
Lab Sample ID: 410-227544-3
Date Collected: 06/12/25 12:25
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		06/29/25 11:03	07/08/25 21:50	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 21:50	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 21:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	490	ng/L		06/29/25 11:03	07/08/25 21:50	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 21:50	1

Client Sample ID: DC340005-WW-POST
Lab Sample ID: 410-227544-3
Date Collected: 06/12/25 12:25
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		980	290	ng/L		06/29/25 11:03	07/08/25 21:50	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 21:50	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorobutanesulfonic acid (PFBS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorobutanoic acid (PFBA)	ND		2500	980	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorodecanoic acid (PFDA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorododecanoic acid (PFDoA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluoroheptanoic acid (PFHpA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorohexanesulfonic acid (PFHxS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorohexanoic acid (PFHxA)	ND		980	440	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorononanesulfonic acid (PFNS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorononanoic acid (PFNA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorooctanesulfonamide (PFOSA)	ND		980	340	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorooctanesulfonic acid (PFOS)	ND		980	490	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorooctanoic acid (PFOA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluoropentanesulfonic acid (PFPeS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluoropentanoic acid (PFPeA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorotetradecanoic acid (PFTeDA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluorotridecanoic acid (PFTrDA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluoroundecanoic acid (PFUnA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		980	98	ng/L		06/29/25 11:03	07/08/25 21:50	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		980	150	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		980	98	ng/L		06/29/25 11:03	07/08/25 21:50	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		980	150	ng/L		06/29/25 11:03	07/08/25 21:50	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		980	98	ng/L		06/29/25 11:03	07/08/25 21:50	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	980	98	ng/L		06/29/25 11:03	07/08/25 21:50	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		980	98	ng/L		06/29/25 11:03	07/08/25 21:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*121*		*19 - 191*	*06/29/25 11:03*	*07/08/25 21:50*	*1*
13C2-6:2 FTS	*147*		*13 - 200*	*06/29/25 11:03*	*07/08/25 21:50*	*1*
13C2-8:2 FTS	*180*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 21:50*	*1*
13C2-PFTeDA	*73*		*10 - 186*	*06/29/25 11:03*	*07/08/25 21:50*	*1*
13C3-HFPO-DA	*95*		*10 - 140*	*06/29/25 11:03*	*07/08/25 21:50*	*1*
13C3-PFBS	*120*		*24 - 176*	*06/29/25 11:03*	*07/08/25 21:50*	*1*
13C4-PFBA	*103*		*26 - 162*	*06/29/25 11:03*	*07/08/25 21:50*	*1*
13C4-PFHpA	*117*		*10 - 193*	*06/29/25 11:03*	*07/08/25 21:50*	*1*

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-WW-POST

Date Collected: 06/12/25 12:25
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-3

Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5-PFPeA	104		15 - 162	06/29/25 11:03	07/08/25 21:50	1
13C8-PFOA	95		27 - 160	06/29/25 11:03	07/08/25 21:50	1
13C8-PFOS	113		22 - 172	06/29/25 11:03	07/08/25 21:50	1
d3-NMeFOSAA	121	cn	10 - 198	06/29/25 11:03	07/08/25 21:50	1
d5-NEtFOSAA	125	cn	10 - 200	06/29/25 11:03	07/08/25 21:50	1
d7-N-MeFOSE-M	33		10 - 181	06/29/25 11:03	07/08/25 21:50	1
d9-N-EtFOSE-M	14		10 - 182	06/29/25 11:03	07/08/25 21:50	1
13C3-PFHxS	117		11 - 180	06/29/25 11:03	07/08/25 21:50	1
13C5-PFHxA	114		10 - 176	06/29/25 11:03	07/08/25 21:50	1
13C6-PFDA	107		19 - 168	06/29/25 11:03	07/08/25 21:50	1
13C7-PFUnA	87		10 - 182	06/29/25 11:03	07/08/25 21:50	1
d3-NMePFOSA	19	cn	10 - 137	06/29/25 11:03	07/08/25 21:50	1
d5-NEtPFOSA	9	*5- cn	10 - 130	06/29/25 11:03	07/08/25 21:50	1
13C8-PFOSA	63		10 - 149	06/29/25 11:03	07/08/25 21:50	1
13C2-PFDoA	54		10 - 183	06/29/25 11:03	07/08/25 21:50	1
13C9-PFNA	104		10 - 198	06/29/25 11:03	07/08/25 21:50	1
13C-6:2 FTCA	106		10 - 185	06/29/25 11:03	07/08/25 21:50	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorodecanoic acid (PFDA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 20:40	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/01/25 07:12	07/05/25 20:40	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/01/25 07:12	07/05/25 20:40	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-WW-POST
Date Collected: 06/12/25 12:25
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-3
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:40	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:40	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:40	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/01/25 07:12	07/05/25 20:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:40	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:40	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:40	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 20:40	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:40	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/01/25 07:12	07/05/25 20:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*154*		*10 - 168*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C5 PFPeA	*174*		*15 - 189*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C5 PFHxA	*115*		*20 - 165*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C4 PFHpA	*134*		*33 - 166*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C8 PFOA	*146*		*40 - 154*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C9 PFNA	*165*	*5+ cn	*39 - 162*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C6 PFDA	*146*		*41 - 153*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C7 PFUnA	*126*		*35 - 161*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C2-PFDoDA	*112*		*22 - 165*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C2 PFTeDA	*144*		*17 - 156*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C3 PFBS	*169*		*27 - 200*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C3 PFHxS	*144*		*39 - 164*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C8 PFOS	*151*		*44 - 153*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C8 FOSA	*85*		*11 - 149*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
d5-NEtFOSAA	*185*	*5+ cn	*30 - 180*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
M2-6:2 FTS	*208*	*5+ cn	*26 - 200*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
M2-8:2 FTS	*293*	*5+ cn	*27 - 200*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
13C3 HFPO-DA	*123*		*11 - 166*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
d7-N-MeFOSE-M	*49*		*10 - 154*	*07/01/25 07:12*	*07/05/25 20:40*	*1*
d9-N-EtFOSE-M	*45*		*10 - 146*	*07/01/25 07:12*	*07/05/25 20:40*	*1*

Client Sample ID: DC340005-WW-POST
Lab Sample ID: 410-227544-3
Date Collected: 06/12/25 12:25
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	8	*5- cn	10 - 130	07/01/25 07:12	07/05/25 20:40	1
d3-NMePFOSA	9	*5- cn	10 - 130	07/01/25 07:12	07/05/25 20:40	1
13C-6:2 FTCA	55		15 - 182	07/01/25 07:12	07/05/25 20:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	54		26 - 150	07/01/25 07:12	07/05/25 20:40	1
13C4 PFOA	69		45 - 147	07/01/25 07:12	07/05/25 20:40	1
13C2 PFUnA	53		11 - 187	07/01/25 07:12	07/05/25 20:40	1

Client Sample ID: DC340005-MIST-PRE
Lab Sample ID: 410-227544-4
Date Collected: 06/12/25 11:10
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		06/29/25 11:03	07/08/25 22:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 22:04	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 22:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	470	ng/L		06/29/25 11:03	07/08/25 22:04	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 22:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		940	280	ng/L		06/29/25 11:03	07/08/25 22:04	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 22:04	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorobutanoic acid (PFBA)	ND		2400	940	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorodecanoic acid (PFDA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorododecanoic acid (PFDoA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluoroheptanoic acid (PFHpA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorohexanoic acid (PFHxA)	**710**	**J**	940	420	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorononanesulfonic acid (PFNS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1

Client Sample ID: DC340005-MIST-PRE
Lab Sample ID: 410-227544-4

Date Collected: 06/12/25 11:10
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorooctanesulfonamide (PFOSA)	**660**	**J**	940	330	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		940	470	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorooctanoic acid (PFOA)	**570**	**J**	940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluoropentanesulfonic acid (PFPeS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluoropentanoic acid (PFPeA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorotetradecanoic acid (PFTeDA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluorotridecanoic acid (PFTrDA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluoroundecanoic acid (PFUnA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		940	94	ng/L		06/29/25 11:03	07/08/25 22:04	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		940	140	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		940	94	ng/L		06/29/25 11:03	07/08/25 22:04	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		940	140	ng/L		06/29/25 11:03	07/08/25 22:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		940	94	ng/L		06/29/25 11:03	07/08/25 22:04	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	940	94	ng/L		06/29/25 11:03	07/08/25 22:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		940	94	ng/L		06/29/25 11:03	07/08/25 22:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*124*		*19 - 191*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C2-6:2 FTS	*136*		*13 - 200*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C2-8:2 FTS	*168*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C2-PFTeDA	*99*		*10 - 186*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C3-HFPO-DA	*112*		*10 - 140*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C3-PFBS	*130*		*24 - 176*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C4-PFBA	*113*		*26 - 162*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C4-PFHpA	*119*		*10 - 193*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C5-PFPeA	*120*		*15 - 162*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C8-PFOA	*104*		*27 - 160*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C8-PFOS	*120*		*22 - 172*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
d3-NMeFOSAA	*130*	*cn*	*10 - 198*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
d5-NEtFOSAA	*128*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
d7-N-MeFOSE-M	*34*		*10 - 181*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
d9-N-EtFOSE-M	*33*		*10 - 182*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C3-PFHxS	*118*		*11 - 180*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C5-PFHxA	*125*		*10 - 176*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C6-PFDA	*115*		*19 - 168*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C7-PFUnA	*113*		*10 - 182*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
d3-NMePFOSA	*8*	**5- cn*	*10 - 137*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
d5-NEtPFOSA	*8*	**5- cn*	*10 - 130*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C8-PFOSA	*73*		*10 - 149*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C2-PFDoA	*120*		*10 - 183*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C9-PFNA	*111*		*10 - 198*	*06/29/25 11:03*	*07/08/25 22:04*	*1*
13C-6:2 FTCA	*110*		*10 - 185*	*06/29/25 11:03*	*07/08/25 22:04*	*1*

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-MIST-PRE
Date Collected: 06/12/25 11:10
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-4
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**550**	**J**	1000	500	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluoropentanoic acid (PFPeA)	**160**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorohexanoic acid (PFHxA)	**530**	**J**	1000	500	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluoroheptanoic acid (PFHpA)	**180**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorooctanoic acid (PFOA)	**380**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorodecanoic acid (PFDA)	**160**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 20:54	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/01/25 07:12	07/05/25 20:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/01/25 07:12	07/05/25 20:54	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:54	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:54	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 20:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/01/25 07:12	07/05/25 20:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:54	1

Client Sample ID: DC340005-MIST-PRE

Lab Sample ID: 410-227544-4

Date Collected: 06/12/25 11:10

Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:54	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 20:54	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 20:54	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 20:54	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/01/25 07:12	07/05/25 20:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*149*		*10 - 168*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C5 PFPeA	*152*		*15 - 189*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C5 PFHxA	*122*		*20 - 165*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C4 PFHpA	*133*		*33 - 166*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C8 PFOA	*138*		*40 - 154*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C9 PFNA	*168*	*5+ cn*	*39 - 162*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C6 PFDA	*147*		*41 - 153*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C7 PFUnA	*124*		*35 - 161*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C2-PFDoDA	*117*		*22 - 165*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C2 PFTeDA	*140*		*17 - 156*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C3 PFBS	*140*		*27 - 200*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C3 PFHxS	*140*		*39 - 164*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C8 PFOS	*149*		*44 - 153*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C8 FOSA	*98*		*11 - 149*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
d5-NEtFOSAA	*135*		*30 - 180*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
M2-6:2 FTS	*151*		*26 - 200*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
M2-8:2 FTS	*195*		*27 - 200*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C3 HFPO-DA	*117*		*11 - 166*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
d7-N-MeFOSE-M	*86*		*10 - 154*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
d9-N-EtFOSE-M	*81*		*10 - 146*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
d5-NEtPFOSA	*52*		*10 - 130*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
d3-NMePFOSA	*59*		*10 - 130*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C-6:2 FTCA	*69*		*15 - 182*	*07/01/25 07:12*	*07/05/25 20:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*58*		*26 - 150*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C4 PFOA	*67*		*45 - 147*	*07/01/25 07:12*	*07/05/25 20:54*	*1*
13C2 PFUnA	*54*		*11 - 187*	*07/01/25 07:12*	*07/05/25 20:54*	*1*

Client Sample ID: DC340005-MIST-POST

Lab Sample ID: 410-227544-5

Date Collected: 06/12/25 11:15

Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		06/29/25 11:03	07/08/25 22:17	1

Client Sample ID: DC340005-MIST-POST
Lab Sample ID: 410-227544-5
Date Collected: 06/12/25 11:15
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	490	ng/L		06/29/25 11:03	07/08/25 22:17	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		980	290	ng/L		06/29/25 11:03	07/08/25 22:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorobutanoic acid (PFBA)	ND		2500	980	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorodecanoic acid (PFDA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorododecanoic acid (PFDoA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluoroheptanoic acid (PFHpA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorohexanoic acid (PFHxA)	ND		980	440	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorononanesulfonic acid (PFNS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorononanoic acid (PFNA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		980	340	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		980	490	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorooctanoic acid (PFOA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluoropentanoic acid (PFPeA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluorotridecanoic acid (PFTrDA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluoroundecanoic acid (PFUnA)	ND		980	250	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		980	98	ng/L		06/29/25 11:03	07/08/25 22:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		980	150	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		980	98	ng/L		06/29/25 11:03	07/08/25 22:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		980	150	ng/L		06/29/25 11:03	07/08/25 22:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		980	98	ng/L		06/29/25 11:03	07/08/25 22:17	1

Client Sample ID: DC340005-MIST-POST
Lab Sample ID: 410-227544-5

Date Collected: 06/12/25 11:15
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	980	98	ng/L		06/29/25 11:03	07/08/25 22:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		980	98	ng/L		06/29/25 11:03	07/08/25 22:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*115*		*19 - 191*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C2-6:2 FTS	*139*		*13 - 200*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C2-8:2 FTS	*147*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C2-PFTeDA	*100*		*10 - 186*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C3-HFPO-DA	*87*		*10 - 140*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C3-PFBS	*126*		*24 - 176*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C4-PFBA	*108*		*26 - 162*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C4-PFHpA	*113*		*10 - 193*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C5-PFPeA	*114*		*15 - 162*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C8-PFOA	*98*		*27 - 160*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C8-PFOS	*115*		*22 - 172*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
d3-NMeFOSAA	*121*	*cn*	*10 - 198*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
d5-NEtFOSAA	*121*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
d7-N-MeFOSE-M	*28*		*10 - 181*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
d9-N-EtFOSE-M	*26*		*10 - 182*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C3-PFHxS	*115*		*11 - 180*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C5-PFHxA	*115*		*10 - 176*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C6-PFDA	*109*		*19 - 168*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C7-PFUnA	*112*		*10 - 182*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
d3-NMePFOSA	*14*	*cn*	*10 - 137*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
d5-NEtPFOSA	*11*	*cn*	*10 - 130*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C8-PFOSA	*81*		*10 - 149*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C2-PFDoA	*109*		*10 - 183*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C9-PFNA	*106*		*10 - 198*	*06/29/25 11:03*	*07/08/25 22:17*	*1*
13C-6:2 FTCA	*105*		*10 - 185*	*06/29/25 11:03*	*07/08/25 22:17*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluoropentanoic acid (PFPeA)	**310**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluoroheptanoic acid (PFHpA)	**380**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorooctanoic acid (PFOA)	**330**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorononanoic acid (PFNA)	**120**	**J**	1000	100	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorodecanoic acid (PFDA)	**180**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-MIST-POST
Date Collected: 06/12/25 11:15
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-5
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/01/25 07:12	07/05/25 21:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/01/25 07:12	07/05/25 21:08	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:08	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:08	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/01/25 07:12	07/05/25 21:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:08	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:08	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:08	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:08	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:08	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/01/25 07:12	07/05/25 21:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*152*		*10 - 168*	*07/01/25 07:12*	*07/05/25 21:08*	*1*
13C5 PFPeA	*153*		*15 - 189*	*07/01/25 07:12*	*07/05/25 21:08*	*1*
13C5 PFHxA	*126*		*20 - 165*	*07/01/25 07:12*	*07/05/25 21:08*	*1*
13C4 PFHpA	*141*		*33 - 166*	*07/01/25 07:12*	*07/05/25 21:08*	*1*
13C8 PFOA	*147*		*40 - 154*	*07/01/25 07:12*	*07/05/25 21:08*	*1*
13C9 PFNA	*163*	*5+ cn*	*39 - 162*	*07/01/25 07:12*	*07/05/25 21:08*	*1*
13C6 PFDA	*146*		*41 - 153*	*07/01/25 07:12*	*07/05/25 21:08*	*1*

Client Sample ID: DC340005-MIST-POST
Lab Sample ID: 410-227544-5
Date Collected: 06/12/25 11:15
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C7 PFUnA	127		35 - 161	07/01/25 07:12	07/05/25 21:08	1
13C2-PFDoDA	124		22 - 165	07/01/25 07:12	07/05/25 21:08	1
13C2 PFTeDA	152		17 - 156	07/01/25 07:12	07/05/25 21:08	1
13C3 PFBS	144		27 - 200	07/01/25 07:12	07/05/25 21:08	1
13C3 PFHxS	149		39 - 164	07/01/25 07:12	07/05/25 21:08	1
13C8 PFOS	146		44 - 153	07/01/25 07:12	07/05/25 21:08	1
13C8 FOSA	118		11 - 149	07/01/25 07:12	07/05/25 21:08	1
d5-NEtFOSAA	135		30 - 180	07/01/25 07:12	07/05/25 21:08	1
M2-6:2 FTS	161		26 - 200	07/01/25 07:12	07/05/25 21:08	1
M2-8:2 FTS	188		27 - 200	07/01/25 07:12	07/05/25 21:08	1
13C3 HFPO-DA	122		11 - 166	07/01/25 07:12	07/05/25 21:08	1
d7-N-MeFOSE-M	96		10 - 154	07/01/25 07:12	07/05/25 21:08	1
d9-N-EtFOSE-M	97		10 - 146	07/01/25 07:12	07/05/25 21:08	1
d5-NEtPFOSA	72		10 - 130	07/01/25 07:12	07/05/25 21:08	1
d3-NMePFOSA	81		10 - 130	07/01/25 07:12	07/05/25 21:08	1
13C-6:2 FTCA	80		15 - 182	07/01/25 07:12	07/05/25 21:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	60		26 - 150	07/01/25 07:12	07/05/25 21:08	1
13C4 PFOA	70		45 - 147	07/01/25 07:12	07/05/25 21:08	1
13C2 PFUnA	55		11 - 187	07/01/25 07:12	07/05/25 21:08	1

Client Sample ID: DC340005-SPOT
Lab Sample ID: 410-227544-6
Date Collected: 06/12/25 13:25
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		06/29/25 11:03	07/08/25 22:31	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:31	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	490	ng/L		06/29/25 11:03	07/08/25 22:31	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		970	290	ng/L		06/29/25 11:03	07/08/25 22:31	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:31	1

Client Sample ID: DC340005-SPOT
Lab Sample ID: 410-227544-6
Date Collected: 06/12/25 13:25
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorobutanoic acid (PFBA)	**2600**		2400	970	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorodecanoic acid (PFDA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorododecanoic acid (PFDoA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluoroheptanoic acid (PFHpA)	**310**	**J**	970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorohexanesulfonic acid (PFHxS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorohexanoic acid (PFHxA)	**470**	**J**	970	440	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorononanesulfonic acid (PFNS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorononanoic acid (PFNA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorooctanesulfonamide (PFOSA)	ND		970	340	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		970	490	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorooctanoic acid (PFOA)	**340**	**J**	970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluoropentanesulfonic acid (PFPeS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluoropentanoic acid (PFPeA)	**560**	**J**	970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorotetradecanoic acid (PFTeDA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluorotridecanoic acid (PFTrDA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluoroundecanoic acid (PFUnA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		970	97	ng/L		06/29/25 11:03	07/08/25 22:31	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		970	150	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		970	97	ng/L		06/29/25 11:03	07/08/25 22:31	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		970	150	ng/L		06/29/25 11:03	07/08/25 22:31	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		970	97	ng/L		06/29/25 11:03	07/08/25 22:31	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	970	97	ng/L		06/29/25 11:03	07/08/25 22:31	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		970	97	ng/L		06/29/25 11:03	07/08/25 22:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*110*		*19 - 191*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C2-6:2 FTS	*127*		*13 - 200*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C2-8:2 FTS	*138*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C2-PFTeDA	*91*		*10 - 186*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C3-HFPO-DA	*92*		*10 - 140*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C3-PFBS	*122*		*24 - 176*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C4-PFBA	*100*		*26 - 162*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C4-PFHpA	*104*		*10 - 193*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C5-PFPeA	*109*		*15 - 162*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C8-PFOA	*91*		*27 - 160*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
13C8-PFOS	*108*		*22 - 172*	*06/29/25 11:03*	*07/08/25 22:31*	*1*
d3-NMeFOSAA	*102*	*cn*	*10 - 198*	*06/29/25 11:03*	*07/08/25 22:31*	*1*

Client Sample ID: DC340005-SPOT
Lab Sample ID: 410-227544-6
Date Collected: 06/12/25 13:25
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105	cn	10 - 200	06/29/25 11:03	07/08/25 22:31	1
d7-N-MeFOSE-M	25		10 - 181	06/29/25 11:03	07/08/25 22:31	1
d9-N-EtFOSE-M	25		10 - 182	06/29/25 11:03	07/08/25 22:31	1
13C3-PFHxS	105		11 - 180	06/29/25 11:03	07/08/25 22:31	1
13C5-PFHxA	110		10 - 176	06/29/25 11:03	07/08/25 22:31	1
13C6-PFDA	104		19 - 168	06/29/25 11:03	07/08/25 22:31	1
13C7-PFUnA	98		10 - 182	06/29/25 11:03	07/08/25 22:31	1
d3-NMePFOSA	13	cn	10 - 137	06/29/25 11:03	07/08/25 22:31	1
d5-NEtPFOSA	13	cn	10 - 130	06/29/25 11:03	07/08/25 22:31	1
13C8-PFOSA	78		10 - 149	06/29/25 11:03	07/08/25 22:31	1
13C2-PFDoA	103		10 - 183	06/29/25 11:03	07/08/25 22:31	1
13C9-PFNA	99		10 - 198	06/29/25 11:03	07/08/25 22:31	1
13C-6:2 FTCA	95		10 - 185	06/29/25 11:03	07/08/25 22:31	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**42000**		1000	500	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluoropentanoic acid (PFPeA)	**460**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluoroheptanoic acid (PFHpA)	**290**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorooctanoic acid (PFOA)	**330**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorononanoic acid (PFNA)	**190**	**J**	1000	100	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorodecanoic acid (PFDA)	**230**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:21	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/01/25 07:12	07/05/25 21:21	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/01/25 07:12	07/05/25 21:21	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:21	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-SPOT
Date Collected: 06/12/25 13:25
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-6
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:21	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:21	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 21:21	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/01/25 07:12	07/05/25 21:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	**280**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:21	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:21	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 21:21	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:21	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 21:21	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/01/25 07:12	07/05/25 21:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*119*		*10 - 168*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C5 PFPeA	*149*		*15 - 189*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C5 PFHxA	*104*		*20 - 165*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C4 PFHpA	*120*		*33 - 166*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C8 PFOA	*129*		*40 - 154*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C9 PFNA	*147*		*39 - 162*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C6 PFDA	*137*		*41 - 153*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C7 PFUnA	*124*		*35 - 161*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C2-PFDoDA	*115*		*22 - 165*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C2 PFTeDA	*146*		*17 - 156*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C3 PFBS	*143*		*27 - 200*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C3 PFHxS	*132*		*39 - 164*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C8 PFOS	*140*		*44 - 153*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C8 FOSA	*123*		*11 - 149*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
d5-NEtFOSAA	*136*		*30 - 180*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
M2-6:2 FTS	*148*		*26 - 200*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
M2-8:2 FTS	*168*		*27 - 200*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C3 HFPO-DA	*114*		*11 - 166*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
d7-N-MeFOSE-M	*106*		*10 - 154*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
d9-N-EtFOSE-M	*96*		*10 - 146*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
d5-NEtPFOSA	*118*		*10 - 130*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
d3-NMePFOSA	*125*		*10 - 130*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C-6:2 FTCA	*63*		*15 - 182*	*07/01/25 07:12*	*07/05/25 21:21*	*1*

Client Sample ID: DC340005-SPOT
Lab Sample ID: 410-227544-6
Date Collected: 06/12/25 13:25
Matrix: Water
Date Received: 06/14/25 10:50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*52*		*26 - 150*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C4 PFOA	*64*		*45 - 147*	*07/01/25 07:12*	*07/05/25 21:21*	*1*
13C2 PFUnA	*52*		*11 - 187*	*07/01/25 07:12*	*07/05/25 21:21*	*1*

Client Sample ID: DC340005-SPOT-2
Lab Sample ID: 410-227544-7
Date Collected: 06/12/25 13:30
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		06/29/25 11:03	07/08/25 22:44	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 22:44	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	**6800**		1500	500	ng/L		06/29/25 11:03	07/08/25 22:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		06/29/25 11:03	07/08/25 22:44	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 22:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		990	300	ng/L		06/29/25 11:03	07/08/25 22:44	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 22:44	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorobutanesulfonic acid (PFBS)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorobutanoic acid (PFBA)	ND		2500	990	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorodecanesulfonic acid (PFDS)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorodecanoic acid (PFDA)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorododecanoic acid (PFDoA)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluoroheptanoic acid (PFHpA)	**510**	**J**	990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorohexanesulfonic acid (PFHxS)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorohexanoic acid (PFHxA)	ND		990	450	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorononanesulfonic acid (PFNS)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorononanoic acid (PFNA)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorooctanesulfonamide (PFOSA)	ND		990	350	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorooctanesulfonic acid (PFOS)	ND		990	500	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorooctanoic acid (PFOA)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1

Client Sample ID: DC340005-SPOT-2
Lab Sample ID: 410-227544-7
Date Collected: 06/12/25 13:30
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluoropentanoic acid (PFPeA)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorotetradecanoic acid (PFTeDA)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluorotridecanoic acid (PFTrDA)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluoroundecanoic acid (PFUnA)	ND		990	250	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		990	99	ng/L		06/29/25 11:03	07/08/25 22:44	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		990	150	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		990	99	ng/L		06/29/25 11:03	07/08/25 22:44	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		990	150	ng/L		06/29/25 11:03	07/08/25 22:44	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		990	99	ng/L		06/29/25 11:03	07/08/25 22:44	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	990	99	ng/L		06/29/25 11:03	07/08/25 22:44	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		990	99	ng/L		06/29/25 11:03	07/08/25 22:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*0.7*	**5- cn*	*19 - 191*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C2-6:2 FTS	*6*	**5- cn*	*13 - 200*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C2-8:2 FTS	*32*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C2-PFTeDA	*0.3*	**5-*	*10 - 186*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C3-HFPO-DA	*0.5*	**5- cn*	*10 - 140*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C3-PFBS	*1*	**5- cn*	*24 - 176*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C4-PFBA	*0.7*	**5- cn*	*26 - 162*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C4-PFHpA	*4*	**5- cn*	*10 - 193*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C5-PFPeA	*0.3*	**5- cn*	*15 - 162*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C8-PFOA	*8*	**5- cn*	*27 - 160*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C8-PFOS	*25*		*22 - 172*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
d3-NMeFOSAA	*23*	*cn*	*10 - 198*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
d5-NEtFOSAA	*22*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
d7-N-MeFOSE-M	*0.9*	**5-*	*10 - 181*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
d9-N-EtFOSE-M	*5*	**5- cn*	*10 - 182*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C3-PFHxS	*14*		*11 - 180*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C5-PFHxA	*0.9*	**5- cn*	*10 - 176*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C6-PFDA	*16*	**5- cn*	*19 - 168*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C7-PFUnA	*18*		*10 - 182*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
d3-NMePFOSA	*2*	**5- cn*	*10 - 137*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
d5-NEtPFOSA	*18*	*cn*	*10 - 130*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C8-PFOSA	*16*		*10 - 149*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C2-PFDoA	*0.1*	**5-*	*10 - 183*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C9-PFNA	*15*		*10 - 198*	*06/29/25 11:03*	*07/08/25 22:44*	*1*
13C-6:2 FTCA	*2*	**5- cn*	*10 - 185*	*06/29/25 11:03*	*07/08/25 22:44*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-SPOT-2
Date Collected: 06/12/25 13:30
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-7
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	100	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorodecanoic acid (PFDA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	100	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		07/01/25 07:12	07/05/25 21:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		07/01/25 07:12	07/05/25 21:35	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:35	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:35	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		07/01/25 07:12	07/05/25 21:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:35	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:35	1

Client Sample ID: DC340005-SPOT-2

Lab Sample ID: 410-227544-7

Date Collected: 06/12/25 13:30

Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:35	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:35	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:35	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+ cn	1000	550	ng/L		07/01/25 07:12	07/05/25 21:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*29*	*cn*	*10 - 168*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C5 PFPeA	*91*	*cn*	*15 - 189*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C5 PFHxA	*109*	*cn*	*20 - 165*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C4 PFHpA	*136*	*cn*	*33 - 166*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C8 PFOA	*128*	*cn*	*40 - 154*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C9 PFNA	*84*	*cn*	*39 - 162*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C6 PFDA	*129*	*cn*	*41 - 153*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C7 PFUnA	*112*	*cn*	*35 - 161*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C2-PFDoDA	*120*	*cn*	*22 - 165*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C2 PFTeDA	*10*	**5- cn*	*17 - 156*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C3 PFBS	*223*	**5+ cn*	*27 - 200*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C3 PFHxS	*248*	**5+ cn*	*39 - 164*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C8 PFOS	*112*	*cn*	*44 - 153*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C8 FOSA	*83*	*cn*	*11 - 149*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
d5-NEtFOSAA	*198*	**5+ cn*	*30 - 180*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
M2-6:2 FTS	*368*	**5+ cn*	*26 - 200*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
M2-8:2 FTS	*377*	**5+ cn*	*27 - 200*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C3 HFPO-DA	*112*	*cn*	*11 - 166*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
d7-N-MeFOSE-M	*92*	*cn*	*10 - 154*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
d9-N-EtFOSE-M	*78*	*cn*	*10 - 146*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
d5-NEtPFOSA	*94*	*cn*	*10 - 130*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
d3-NMePFOSA	*97*	*cn*	*10 - 130*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C-6:2 FTCA	*78*	*cn*	*15 - 182*	*07/01/25 07:12*	*07/05/25 21:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*54*	*cn*	*26 - 150*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C4 PFOA	*66*	*cn*	*45 - 147*	*07/01/25 07:12*	*07/05/25 21:35*	*1*
13C2 PFUnA	*65*	*cn*	*11 - 187*	*07/01/25 07:12*	*07/05/25 21:35*	*1*

Client Sample ID: DC340005-DET

Lab Sample ID: 410-227544-8

Date Collected: 06/12/25 13:00

Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	2400	2000	ng/L		06/29/25 11:03	07/08/25 22:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1400	480	ng/L		06/29/25 11:03	07/08/25 22:58	1

Client Sample ID: DC340005-DET
Lab Sample ID: 410-227544-8
Date Collected: 06/12/25 13:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	**1200**	**J cn**	1400	480	ng/L		06/29/25 11:03	07/08/25 22:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1400	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	2400	480	ng/L		06/29/25 11:03	07/08/25 22:58	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1400	480	ng/L		06/29/25 11:03	07/08/25 22:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	950	290	ng/L		06/29/25 11:03	07/08/25 22:58	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1400	480	ng/L		06/29/25 11:03	07/08/25 22:58	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1400	480	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorobutanoic acid (PFBA)	ND	cn	2400	950	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorodecanoic acid (PFDA)	**10000**	**cn**	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1400	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorododecanoic acid (PFDoA)	**4800**	**cn**	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluoroheptanoic acid (PFHpA)	**1500**	**cn**	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorohexanoic acid (PFHxA)	**33000**	**cn**	950	430	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorononanoic acid (PFNA)	**1500**	**cn**	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	950	330	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	950	480	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorooctanoic acid (PFOA)	**17000**	**cn**	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluoropentanoic acid (PFPeA)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorotetradecanoic acid (PFTeDA)	**1500**	**cn**	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	950	240	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	950	95	ng/L		06/29/25 11:03	07/08/25 22:58	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	950	140	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	950	95	ng/L		06/29/25 11:03	07/08/25 22:58	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	950	140	ng/L		06/29/25 11:03	07/08/25 22:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	950	95	ng/L		06/29/25 11:03	07/08/25 22:58	1

Client Sample ID: DC340005-DET
Date Collected: 06/12/25 13:00
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-8
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	950	95	ng/L		06/29/25 11:03	07/08/25 22:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	950	95	ng/L		06/29/25 11:03	07/08/25 22:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*3*	**5- cn*	*19 - 191*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C2-6:2 FTS	*81*	*cn*	*13 - 200*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C2-8:2 FTS	*217*	**5+ cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C2-PFTeDA	*15*	*cn*	*10 - 186*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C3-HFPO-DA	*5*	**5- cn*	*10 - 140*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C3-PFBS	*17*	**5- cn*	*24 - 176*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C4-PFBA	*1*	**5- cn*	*26 - 162*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C4-PFHpA	*21*	*cn*	*10 - 193*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C5-PFPeA	*1*	**5- cn*	*15 - 162*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C8-PFOA	*54*	*cn*	*27 - 160*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C8-PFOS	*66*	*cn*	*22 - 172*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
d3-NMeFOSAA	*34*	*cn*	*10 - 198*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
d5-NEtFOSAA	*2*	**5- cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
d7-N-MeFOSE-M	*8*	**5- cn*	*10 - 181*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
d9-N-EtFOSE-M	*0.3*	**5- cn*	*10 - 182*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C3-PFHxS	*151*	*cn*	*11 - 180*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C5-PFHxA	*5*	**5- cn*	*10 - 176*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C6-PFDA	*47*	*cn*	*19 - 168*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C7-PFUnA	*0.4*	**5- cn*	*10 - 182*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
d3-NMePFOSA	*12*	*cn*	*10 - 137*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
d5-NEtPFOSA	*1*	**5- cn*	*10 - 130*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C8-PFOSA	*3*	**5- cn*	*10 - 149*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C2-PFDoA	*24*	*cn*	*10 - 183*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C9-PFNA	*48*	*cn*	*10 - 198*	*06/29/25 11:03*	*07/08/25 22:58*	*1*
13C-6:2 FTCA	*3*	**5- cn*	*10 - 185*	*06/29/25 11:03*	*07/08/25 22:58*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluoropentanoic acid (PFPeA)	**1500**	**cn**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorohexanoic acid (PFHxA)	**24000**	**cn**	1000	500	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorooctanoic acid (PFOA)	**13000**	**cn**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorononanoic acid (PFNA)	**1000**	**cn**	1000	100	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorodecanoic acid (PFDA)	**5700**	**cn**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluoroundecanoic acid (PFUnA)	**45000**	**cn**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorododecanoic acid (PFDoA)	**2500**	**cn**	1000	200	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorotetradecanoic acid (PFTeDA)	**560**	**J cn**	1000	200	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorobutanesulfonic acid (PFBS)	**19000**	**cn**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1

Client Sample ID: DC340005-DET
Lab Sample ID: 410-227544-8
Date Collected: 06/12/25 13:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	100	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorododecanesulfonic acid (PFDoS)	**320**	**J cn**	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:48	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		07/01/25 07:12	07/05/25 21:48	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		07/01/25 07:12	07/05/25 21:48	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:48	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	**7400**	**cn**	1000	200	ng/L		07/01/25 07:12	07/05/25 21:48	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	200	ng/L		07/01/25 07:12	07/05/25 21:48	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		07/01/25 07:12	07/05/25 21:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:48	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:48	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	150	ng/L		07/01/25 07:12	07/05/25 21:48	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:48	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 21:48	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+ cn	1000	550	ng/L		07/01/25 07:12	07/05/25 21:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*117*	*cn*	*10 - 168*	*07/01/25 07:12*	*07/05/25 21:48*	*1*
13C5 PFPeA	*156*	*cn*	*15 - 189*	*07/01/25 07:12*	*07/05/25 21:48*	*1*
13C5 PFHxA	*86*	*cn*	*20 - 165*	*07/01/25 07:12*	*07/05/25 21:48*	*1*
13C4 PFHpA	*79*	*cn*	*33 - 166*	*07/01/25 07:12*	*07/05/25 21:48*	*1*
13C8 PFOA	*93*	*cn*	*40 - 154*	*07/01/25 07:12*	*07/05/25 21:48*	*1*

Client Sample ID: DC340005-DET
Lab Sample ID: 410-227544-8
Date Collected: 06/12/25 13:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C9 PFNA	67	cn	39 - 162	07/01/25 07:12	07/05/25 21:48	1
13C6 PFDA	91	cn	41 - 153	07/01/25 07:12	07/05/25 21:48	1
13C7 PFUnA	0.8	*5- cn	35 - 161	07/01/25 07:12	07/05/25 21:48	1
13C2-PFDoDA	125	cn	22 - 165	07/01/25 07:12	07/05/25 21:48	1
13C2 PFTeDA	71	cn	17 - 156	07/01/25 07:12	07/05/25 21:48	1
13C3 PFBS	276	*5+ cn	27 - 200	07/01/25 07:12	07/05/25 21:48	1
13C3 PFHxS	116	cn	39 - 164	07/01/25 07:12	07/05/25 21:48	1
13C8 PFOS	91	cn	44 - 153	07/01/25 07:12	07/05/25 21:48	1
13C8 FOSA	9	*5- cn	11 - 149	07/01/25 07:12	07/05/25 21:48	1
d5-NEtFOSAA	1	*5- cn	30 - 180	07/01/25 07:12	07/05/25 21:48	1
M2-6:2 FTS	245	*5+ cn	26 - 200	07/01/25 07:12	07/05/25 21:48	1
M2-8:2 FTS	411	*5+ cn	27 - 200	07/01/25 07:12	07/05/25 21:48	1
13C3 HFPO-DA	43	cn	11 - 166	07/01/25 07:12	07/05/25 21:48	1
d7-N-MeFOSE-M	41	cn	10 - 154	07/01/25 07:12	07/05/25 21:48	1
d9-N-EtFOSE-M	11	cn	10 - 146	07/01/25 07:12	07/05/25 21:48	1
d5-NEtPFOSA	4	*5- cn	10 - 130	07/01/25 07:12	07/05/25 21:48	1
d3-NMePFOSA	58	cn	10 - 130	07/01/25 07:12	07/05/25 21:48	1
13C-6:2 FTCA	30	cn	15 - 182	07/01/25 07:12	07/05/25 21:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	43	cn	26 - 150	07/01/25 07:12	07/05/25 21:48	1
13C4 PFOA	41	S1- cn	45 - 147	07/01/25 07:12	07/05/25 21:48	1
13C2 PFUnA	0.1	S1- cn	11 - 187	07/01/25 07:12	07/05/25 21:48	1

Client Sample ID: DC340005-DET-2
Lab Sample ID: 410-227544-9
Date Collected: 06/12/25 12:50
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		06/29/25 11:03	07/08/25 23:11	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 23:11	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 23:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	470	ng/L		06/29/25 11:03	07/08/25 23:11	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 23:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		940	280	ng/L		06/29/25 11:03	07/08/25 23:11	1

Client Sample ID: DC340005-DET-2
Lab Sample ID: 410-227544-9
Date Collected: 06/12/25 12:50
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 23:11	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	470	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorobutanoic acid (PFBA)	ND		2400	940	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorodecanoic acid (PFDA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorododecanoic acid (PFDoA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluoroheptanoic acid (PFHpA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorohexanoic acid (PFHxA)	ND		940	420	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorononanesulfonic acid (PFNS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorononanoic acid (PFNA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorooctanesulfonamide (PFOSA)	**1500**		940	330	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		940	470	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorooctanoic acid (PFOA)	**3100**		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluoropentanesulfonic acid (PFPeS)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluoropentanoic acid (PFPeA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorotetradecanoic acid (PFTeDA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluorotridecanoic acid (PFTrDA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluoroundecanoic acid (PFUnA)	ND		940	240	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		940	94	ng/L		06/29/25 11:03	07/08/25 23:11	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		940	140	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		940	94	ng/L		06/29/25 11:03	07/08/25 23:11	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		940	140	ng/L		06/29/25 11:03	07/08/25 23:11	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		940	94	ng/L		06/29/25 11:03	07/08/25 23:11	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	940	94	ng/L		06/29/25 11:03	07/08/25 23:11	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		940	94	ng/L		06/29/25 11:03	07/08/25 23:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*130*		*19 - 191*	*06/29/25 11:03*	*07/08/25 23:11*	*1*
13C2-6:2 FTS	*190*		*13 - 200*	*06/29/25 11:03*	*07/08/25 23:11*	*1*
13C2-8:2 FTS	*347*	**5+ cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 23:11*	*1*
13C2-PFTeDA	*89*		*10 - 186*	*06/29/25 11:03*	*07/08/25 23:11*	*1*
13C3-HFPO-DA	*98*		*10 - 140*	*06/29/25 11:03*	*07/08/25 23:11*	*1*
13C3-PFBS	*119*		*24 - 176*	*06/29/25 11:03*	*07/08/25 23:11*	*1*
13C4-PFBA	*110*		*26 - 162*	*06/29/25 11:03*	*07/08/25 23:11*	*1*
13C4-PFHpA	*121*		*10 - 193*	*06/29/25 11:03*	*07/08/25 23:11*	*1*
13C5-PFPeA	*116*		*15 - 162*	*06/29/25 11:03*	*07/08/25 23:11*	*1*

Client Sample ID: DC340005-DET-2
Date Collected: 06/12/25 12:50
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-9
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8-PFOA	100		27 - 160	06/29/25 11:03	07/08/25 23:11	1
13C8-PFOS	116		22 - 172	06/29/25 11:03	07/08/25 23:11	1
d3-NMeFOSAA	167	cn	10 - 198	06/29/25 11:03	07/08/25 23:11	1
d5-NEtFOSAA	261	*5+ cn	10 - 200	06/29/25 11:03	07/08/25 23:11	1
d7-N-MeFOSE-M	58		10 - 181	06/29/25 11:03	07/08/25 23:11	1
d9-N-EtFOSE-M	48		10 - 182	06/29/25 11:03	07/08/25 23:11	1
13C3-PFHxS	114		11 - 180	06/29/25 11:03	07/08/25 23:11	1
13C5-PFHxA	120		10 - 176	06/29/25 11:03	07/08/25 23:11	1
13C6-PFDA	111		19 - 168	06/29/25 11:03	07/08/25 23:11	1
13C7-PFUnA	108		10 - 182	06/29/25 11:03	07/08/25 23:11	1
d3-NMePFOSA	52	cn	10 - 137	06/29/25 11:03	07/08/25 23:11	1
d5-NEtPFOSA	44	cn	10 - 130	06/29/25 11:03	07/08/25 23:11	1
13C8-PFOSA	81		10 - 149	06/29/25 11:03	07/08/25 23:11	1
13C2-PFDoA	94		10 - 183	06/29/25 11:03	07/08/25 23:11	1
13C9-PFNA	123		10 - 198	06/29/25 11:03	07/08/25 23:11	1
13C-6:2 FTCA	110		10 - 185	06/29/25 11:03	07/08/25 23:11	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorooctanoic acid (PFOA)	**1700**		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorodecanoic acid (PFDA)	**170**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 22:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/01/25 07:12	07/05/25 22:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/01/25 07:12	07/05/25 22:02	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:02	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-DET-2
Date Collected: 06/12/25 12:50
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-9
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:02	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:02	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/01/25 07:12	07/05/25 22:02	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:02	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:02	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 22:02	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:02	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/01/25 07:12	07/05/25 22:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*142*		*10 - 168*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C5 PFPeA	*156*		*15 - 189*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C5 PFHxA	*96*		*20 - 165*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C4 PFHpA	*118*		*33 - 166*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C8 PFOA	*133*		*40 - 154*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C9 PFNA	*142*		*39 - 162*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C6 PFDA	*135*		*41 - 153*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C7 PFUnA	*118*		*35 - 161*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C2-PFDoDA	*104*		*22 - 165*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C2 PFTeDA	*139*		*17 - 156*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C3 PFBS	*143*		*27 - 200*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C3 PFHxS	*127*		*39 - 164*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C8 PFOS	*134*		*44 - 153*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C8 FOSA	*111*		*11 - 149*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
d5-NEtFOSAA	*147*		*30 - 180*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
M2-6:2 FTS	*209*	*5+ cn*	*26 - 200*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
M2-8:2 FTS	*266*	*5+ cn*	*27 - 200*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
13C3 HFPO-DA	*106*		*11 - 166*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
d7-N-MeFOSE-M	*95*		*10 - 154*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
d9-N-EtFOSE-M	*90*		*10 - 146*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
d5-NEtPFOSA	*105*		*10 - 130*	*07/01/25 07:12*	*07/05/25 22:02*	*1*
d3-NMePFOSA	*120*		*10 - 130*	*07/01/25 07:12*	*07/05/25 22:02*	*1*

Client Sample ID: DC340005-DET-2

Lab Sample ID: 410-227544-9

Date Collected: 06/12/25 12:50
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-6:2 FTCA	63		15 - 182	07/01/25 07:12	07/05/25 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	49		26 - 150	07/01/25 07:12	07/05/25 22:02	1
13C4 PFOA	66		45 - 147	07/01/25 07:12	07/05/25 22:02	1
13C2 PFUnA	31		11 - 187	07/01/25 07:12	07/05/25 22:02	1

Client Sample ID: DC340005-DET-3

Lab Sample ID: 410-227544-10

Date Collected: 06/12/25 13:10
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		06/29/25 11:03	07/08/25 23:39	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 23:39	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 23:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	490	ng/L		06/29/25 11:03	07/08/25 23:39	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 23:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		970	290	ng/L		06/29/25 11:03	07/08/25 23:39	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 23:39	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorobutanesulfonic acid (PFBS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorobutanoic acid (PFBA)	ND		2400	970	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorodecanoic acid (PFDA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorododecanoic acid (PFDoA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluoroheptanoic acid (PFHpA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorohexanesulfonic acid (PFHxS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorohexanoic acid (PFHxA)	ND		970	440	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorononanesulfonic acid (PFNS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorononanoic acid (PFNA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorooctanesulfonamide (PFOSA)	ND		970	340	ng/L		06/29/25 11:03	07/08/25 23:39	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-DET-3
Date Collected: 06/12/25 13:10
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-10
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		970	490	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorooctanoic acid (PFOA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluoropentanesulfonic acid (PFPeS)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluoropentanoic acid (PFPeA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorotetradecanoic acid (PFTeDA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluorotridecanoic acid (PFTrDA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluoroundecanoic acid (PFUnA)	ND		970	240	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		970	97	ng/L		06/29/25 11:03	07/08/25 23:39	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		970	150	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		970	97	ng/L		06/29/25 11:03	07/08/25 23:39	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		970	150	ng/L		06/29/25 11:03	07/08/25 23:39	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		970	97	ng/L		06/29/25 11:03	07/08/25 23:39	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		970	97	ng/L		06/29/25 11:03	07/08/25 23:39	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		970	97	ng/L		06/29/25 11:03	07/08/25 23:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*102*		*19 - 191*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C2-6:2 FTS	*131*		*13 - 200*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C2-8:2 FTS	*218*	**5+ cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C2-PFTeDA	*43*		*10 - 186*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C3-HFPO-DA	*118*		*10 - 140*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C3-PFBS	*128*		*24 - 176*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C4-PFBA	*110*		*26 - 162*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C4-PFHpA	*121*		*10 - 193*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C5-PFPeA	*119*		*15 - 162*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C8-PFOA	*99*		*27 - 160*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C8-PFOS	*119*		*22 - 172*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
d3-NMeFOSAA	*27*		*10 - 198*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
d5-NEtFOSAA	*87*		*10 - 200*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
d7-N-MeFOSE-M	*48*		*10 - 181*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
d9-N-EtFOSE-M	*14*		*10 - 182*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C3-PFHxS	*121*		*11 - 180*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C5-PFHxA	*119*		*10 - 176*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C6-PFDA	*114*		*19 - 168*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C7-PFUnA	*61*		*10 - 182*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
d3-NMePFOSA	*34*	*cn*	*10 - 137*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
d5-NEtPFOSA	*12*	*cn*	*10 - 130*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C8-PFOSA	*38*		*10 - 149*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C2-PFDoA	*30*		*10 - 183*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C9-PFNA	*109*		*10 - 198*	*06/29/25 11:03*	*07/08/25 23:39*	*1*
13C-6:2 FTCA	*100*		*10 - 185*	*06/29/25 11:03*	*07/08/25 23:39*	*1*

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-DET-3
Date Collected: 06/12/25 13:10
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-10
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorodecanoic acid (PFDA)	**150**	**J**	1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 22:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/01/25 07:12	07/05/25 22:15	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/01/25 07:12	07/05/25 22:15	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:15	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:15	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 22:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/01/25 07:12	07/05/25 22:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:15	1

Client Sample ID: DC340005-DET-3

Lab Sample ID: 410-227544-10

Date Collected: 06/12/25 13:10

Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 22:15	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/01/25 07:12	07/05/25 22:15	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 22:15	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/01/25 07:12	07/05/25 22:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*145*		*10 - 168*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C5 PFPeA	*168*		*15 - 189*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C5 PFHxA	*111*		*20 - 165*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C4 PFHpA	*128*		*33 - 166*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C8 PFOA	*139*		*40 - 154*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C9 PFNA	*164*	*5+ cn*	*39 - 162*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C6 PFDA	*145*		*41 - 153*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C7 PFUnA	*125*		*35 - 161*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C2-PFDoDA	*108*		*22 - 165*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C2 PFTeDA	*137*		*17 - 156*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C3 PFBS	*151*		*27 - 200*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C3 PFHxS	*142*		*39 - 164*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C8 PFOS	*143*		*44 - 153*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C8 FOSA	*113*		*11 - 149*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
d5-NEtFOSAA	*150*		*30 - 180*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
M2-6:2 FTS	*209*	*5+ cn*	*26 - 200*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
M2-8:2 FTS	*289*	*5+ cn*	*27 - 200*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C3 HFPO-DA	*116*		*11 - 166*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
d7-N-MeFOSE-M	*90*		*10 - 154*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
d9-N-EtFOSE-M	*93*		*10 - 146*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
d5-NEtPFOSA	*104*		*10 - 130*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
d3-NMePFOSA	*113*		*10 - 130*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C-6:2 FTCA	*74*		*15 - 182*	*07/01/25 07:12*	*07/05/25 22:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*54*		*26 - 150*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C4 PFOA	*70*		*45 - 147*	*07/01/25 07:12*	*07/05/25 22:15*	*1*
13C2 PFUnA	*55*		*11 - 187*	*07/01/25 07:12*	*07/05/25 22:15*	*1*

Client Sample ID: DC340005-WW-BASIN

Lab Sample ID: 410-227544-11

Date Collected: 06/12/25 12:10

Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		06/29/25 11:03	07/08/25 23:52	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-WW-BASIN
Date Collected: 06/12/25 12:10
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-11
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 23:52	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 23:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		06/29/25 11:03	07/08/25 23:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 23:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		950	290	ng/L		06/29/25 11:03	07/08/25 23:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 23:52	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorobutanoic acid (PFBA)	ND		2400	950	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorodecanoic acid (PFDA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorododecanoic acid (PFDoA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluoroheptanoic acid (PFHpA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorohexanoic acid (PFHxA)	ND		950	430	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorononanesulfonic acid (PFNS)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorononanoic acid (PFNA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		950	330	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		950	480	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorooctanoic acid (PFOA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluoropentanoic acid (PFPeA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluoroundecanoic acid (PFUnA)	ND		950	240	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		950	95	ng/L		06/29/25 11:03	07/08/25 23:52	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		950	140	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		950	95	ng/L		06/29/25 11:03	07/08/25 23:52	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		950	140	ng/L		06/29/25 11:03	07/08/25 23:52	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		950	95	ng/L		06/29/25 11:03	07/08/25 23:52	1

Client Sample ID: DC340005-WW-BASIN
Lab Sample ID: 410-227544-11
Date Collected: 06/12/25 12:10
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		950	95	ng/L		06/29/25 11:03	07/08/25 23:52	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		950	95	ng/L		06/29/25 11:03	07/08/25 23:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*107*		*19 - 191*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C2-6:2 FTS	*125*		*13 - 200*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C2-8:2 FTS	*136*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C2-PFTeDA	*96*		*10 - 186*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C3-HFPO-DA	*99*		*10 - 140*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C3-PFBS	*119*		*24 - 176*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C4-PFBA	*101*		*26 - 162*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C4-PFHpA	*112*		*10 - 193*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C5-PFPeA	*111*		*15 - 162*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C8-PFOA	*93*		*27 - 160*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C8-PFOS	*107*		*22 - 172*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
d3-NMeFOSAA	*107*		*10 - 198*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
d5-NEtFOSAA	*113*		*10 - 200*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
d7-N-MeFOSE-M	*20*		*10 - 181*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
d9-N-EtFOSE-M	*21*		*10 - 182*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C3-PFHxS	*112*		*11 - 180*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C5-PFHxA	*110*		*10 - 176*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C6-PFDA	*107*		*19 - 168*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C7-PFUnA	*102*		*10 - 182*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
d3-NMePFOSA	*7*	**5- cn*	*10 - 137*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
d5-NEtPFOSA	*7*	**5- cn*	*10 - 130*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C8-PFOSA	*80*		*10 - 149*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C2-PFDoA	*102*		*10 - 183*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C9-PFNA	*97*		*10 - 198*	*06/29/25 11:03*	*07/08/25 23:52*	*1*
13C-6:2 FTCA	*95*		*10 - 185*	*06/29/25 11:03*	*07/08/25 23:52*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluoropentanoic acid (PFPeA)	**610**	**J**	1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorohexanoic acid (PFHxA)	**990**	**J**	1000	500	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluoroheptanoic acid (PFHpA)	**1200**		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorooctanoic acid (PFOA)	**760**	**J**	1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorononanoic acid (PFNA)	**290**	**J I**	1000	100	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorodecanoic acid (PFDA)	**350**	**J B cn**	1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-WW-BASIN
Date Collected: 06/12/25 12:10
Date Received: 06/14/25 10:50

Lab Sample ID: 410-227544-11
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:18	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/11/25 07:30	07/17/25 14:18	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/11/25 07:30	07/17/25 14:18	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:18	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:18	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:18	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/11/25 07:30	07/17/25 14:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:18	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:18	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:18	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:18	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:18	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/11/25 07:30	07/17/25 14:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*10 - 168*	*07/11/25 07:30*	*07/17/25 14:18*	*1*
13C5 PFPeA	*111*		*15 - 189*	*07/11/25 07:30*	*07/17/25 14:18*	*1*
13C5 PFHxA	*101*		*20 - 165*	*07/11/25 07:30*	*07/17/25 14:18*	*1*
13C4 PFHpA	*101*		*33 - 166*	*07/11/25 07:30*	*07/17/25 14:18*	*1*
13C8 PFOA	*96*		*40 - 154*	*07/11/25 07:30*	*07/17/25 14:18*	*1*
13C9 PFNA	*111*		*39 - 162*	*07/11/25 07:30*	*07/17/25 14:18*	*1*
13C6 PFDA	*100*		*41 - 153*	*07/11/25 07:30*	*07/17/25 14:18*	*1*

Client Sample ID: DC340005-WW-BASIN

Lab Sample ID: 410-227544-11

Date Collected: 06/12/25 12:10

Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C7 PFUnA	97		35 - 161	07/11/25 07:30	07/17/25 14:18	1
13C2-PFDoDA	92		22 - 165	07/11/25 07:30	07/17/25 14:18	1
13C2 PFTeDA	100		17 - 156	07/11/25 07:30	07/17/25 14:18	1
13C3 PFBS	119		27 - 200	07/11/25 07:30	07/17/25 14:18	1
13C3 PFHxS	106		39 - 164	07/11/25 07:30	07/17/25 14:18	1
13C8 PFOS	104		44 - 153	07/11/25 07:30	07/17/25 14:18	1
13C8 FOSA	75		11 - 149	07/11/25 07:30	07/17/25 14:18	1
d5-NEtFOSAA	97		30 - 180	07/11/25 07:30	07/17/25 14:18	1
M2-6:2 FTS	96		26 - 200	07/11/25 07:30	07/17/25 14:18	1
M2-8:2 FTS	116		27 - 200	07/11/25 07:30	07/17/25 14:18	1
13C3 HFPO-DA	93		11 - 166	07/11/25 07:30	07/17/25 14:18	1
d7-N-MeFOSE-M	79		10 - 154	07/11/25 07:30	07/17/25 14:18	1
d9-N-EtFOSE-M	79		10 - 146	07/11/25 07:30	07/17/25 14:18	1
d5-NEtPFOSA	66		10 - 130	07/11/25 07:30	07/17/25 14:18	1
d3-NMePFOSA	67		10 - 130	07/11/25 07:30	07/17/25 14:18	1
13C-6:2 FTCA	61		15 - 182	07/11/25 07:30	07/17/25 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	102		26 - 150	07/11/25 07:30	07/17/25 14:18	1
13C4 PFOA	96		45 - 147	07/11/25 07:30	07/17/25 14:18	1
13C2 PFUnA	88		11 - 187	07/11/25 07:30	07/17/25 14:18	1

Client Sample ID: DC340005-DUP-2

Lab Sample ID: 410-227544-15

Date Collected: 06/12/25 00:00

Matrix: Water

Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		06/29/25 11:03	07/09/25 00:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	480	ng/L		06/29/25 11:03	07/09/25 00:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		06/29/25 11:03	07/09/25 00:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		06/29/25 11:03	07/09/25 00:06	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		06/29/25 11:03	07/09/25 00:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		960	290	ng/L		06/29/25 11:03	07/09/25 00:06	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		06/29/25 11:03	07/09/25 00:06	1

Client Sample ID: DC340005-DUP-2
Lab Sample ID: 410-227544-15
Date Collected: 06/12/25 00:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorobutanesulfonic acid (PFBS)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorobutanoic acid (PFBA)	ND		2400	960	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorodecanoic acid (PFDA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorododecanoic acid (PFDoA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluoroheptanoic acid (PFHpA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorohexanesulfonic acid (PFHxS)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorohexanoic acid (PFHxA)	ND		960	430	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorononanesulfonic acid (PFNS)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorononanoic acid (PFNA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		960	340	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorooctanesulfonic acid (PFOS)	ND		960	480	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorooctanoic acid (PFOA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluoropentanesulfonic acid (PFPeS)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluoropentanoic acid (PFPeA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorotetradecanoic acid (PFTeDA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluorotridecanoic acid (PFTrDA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluoroundecanoic acid (PFUnA)	ND		960	240	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		960	96	ng/L		06/29/25 11:03	07/09/25 00:06	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		960	140	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		960	96	ng/L		06/29/25 11:03	07/09/25 00:06	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		960	140	ng/L		06/29/25 11:03	07/09/25 00:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		960	96	ng/L		06/29/25 11:03	07/09/25 00:06	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		960	96	ng/L		06/29/25 11:03	07/09/25 00:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		960	96	ng/L		06/29/25 11:03	07/09/25 00:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*101*		*19 - 191*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C2-6:2 FTS	*120*		*13 - 200*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C2-8:2 FTS	*130*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C2-PFTeDA	*106*		*10 - 186*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C3-HFPO-DA	*114*		*10 - 140*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C3-PFBS	*132*		*24 - 176*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C4-PFBA	*116*		*26 - 162*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C4-PFHpA	*129*		*10 - 193*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C5-PFPeA	*120*		*15 - 162*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C8-PFOA	*108*		*27 - 160*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
13C8-PFOS	*125*		*22 - 172*	*06/29/25 11:03*	*07/09/25 00:06*	*1*
d3-NMeFOSAA	*113*		*10 - 198*	*06/29/25 11:03*	*07/09/25 00:06*	*1*

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

Client Sample ID: DC340005-DUP-2
Lab Sample ID: 410-227544-15
Date Collected: 06/12/25 00:00
Matrix: Water
Date Received: 06/14/25 10:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	120		10 - 200	06/29/25 11:03	07/09/25 00:06	1
d7-N-MeFOSE-M	26		10 - 181	06/29/25 11:03	07/09/25 00:06	1
d9-N-EtFOSE-M	26		10 - 182	06/29/25 11:03	07/09/25 00:06	1
13C3-PFHxS	131		11 - 180	06/29/25 11:03	07/09/25 00:06	1
13C5-PFHxA	127		10 - 176	06/29/25 11:03	07/09/25 00:06	1
13C6-PFDA	115		19 - 168	06/29/25 11:03	07/09/25 00:06	1
13C7-PFUnA	119		10 - 182	06/29/25 11:03	07/09/25 00:06	1
d3-NMePFOSA	10	cn	10 - 137	06/29/25 11:03	07/09/25 00:06	1
d5-NEtPFOSA	9	*5- cn	10 - 130	06/29/25 11:03	07/09/25 00:06	1
13C8-PFOSA	84		10 - 149	06/29/25 11:03	07/09/25 00:06	1
13C2-PFDoA	122		10 - 183	06/29/25 11:03	07/09/25 00:06	1
13C9-PFNA	116		10 - 198	06/29/25 11:03	07/09/25 00:06	1
13C-6:2 FTCA	104		10 - 185	06/29/25 11:03	07/09/25 00:06	1

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID			
MB 410-665342/1-B	Method Blank			
MB 410-665342/2-B	Method Blank			
MB 410-669876/2-B	Method Blank			

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID	(26-150)	(45-147)	(11-187)
410-227544-1	DC340005-SS	29	28 S1-	11
410-227544-2	DC340005-WW-PRE	52	67	54
410-227544-3	DC340005-WW-POST	54	69	53
410-227544-4	DC340005-MIST-PRE	58	67	54
410-227544-5	DC340005-MIST-POST	60	70	55
410-227544-6	DC340005-SPOT	52	64	52
410-227544-7	DC340005-SPOT-2	54 cn	66 cn	65 cn
410-227544-8	DC340005-DET	43 cn	41 S1- cn	0.1 S1- cn
410-227544-9	DC340005-DET-2	49	66	31
410-227544-10	DC340005-DET-3	54	70	55
410-227544-11	DC340005-WW-BASIN	102	96	88

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (19-191)	M262FTS (13-200)	M282FTS (10-200)	PFTDA (10-186)	HFPODA (10-140)	C3PFBS (24-176)	PFBA (26-162)	C4PFHA (10-193)
410-227544-1	DC340005-SS	80	144	189	23	50	63	55	59
410-227544-2	DC340005-WW-PRE	113	134	235 *5+ cn	87	97	121	103	109
410-227544-3	DC340005-WW-POST	121	147	180 cn	73	95	120	103	117
410-227544-4	DC340005-MIST-PRE	124	136	168 cn	99	112	130	113	119
410-227544-5	DC340005-MIST-POST	115	139	147 cn	100	87	126	108	113
410-227544-6	DC340005-SPOT	110	127	138 cn	91	92	122	100	104
410-227544-7	DC340005-SPOT-2	0.7 *5- cn	6 *5- cn	32 cn	0.3 *5-	0.5 *5- cn	1 *5- cn	0.7 *5- cn	4 *5- cn
410-227544-8	DC340005-DET	3 *5- cn	81 cn	217 *5+ cn	15 cn	5 *5- cn	17 *5- cn	1 *5- cn	21 cn
410-227544-9	DC340005-DET-2	130	190	347 *5+ cn	89	98	119	110	121
410-227544-10	DC340005-DET-3	102	131	218 *5+ cn	43	118	128	110	121
410-227544-11	DC340005-WW-BASIN	107	125	136 cn	96	99	119	101	112
410-227544-15	DC340005-DUP-2	101	120	130 cn	106	114	132	116	129
LCS 410-664522/2-B	Lab Control Sample	109	122	126	89	73	108	94	102
LCSD 410-664522/3-B	Lab Control Sample Dup	119	123	136	98	92	121	102	110
MB 410-664522/1-B	Method Blank	130	139	144	99	104	128	110	112

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFPeA (15-162)	C8PFOA (27-160)	C8PFOS (22-172)	d3NMFOS (10-198)	d5NEFOS (10-200)	NMFM (10-181)	NEFM (10-182)	C3PFHS (11-180)
410-227544-1	DC340005-SS	56	53	62	90	84	40	28	61
410-227544-2	DC340005-WW-PRE	110	94	112	152 cn	201 *5+ cn	42	40	112
410-227544-3	DC340005-WW-POST	104	95	113	121 cn	125 cn	33	14	117
410-227544-4	DC340005-MIST-PRE	120	104	120	130 cn	128 cn	34	33	118
410-227544-5	DC340005-MIST-POST	114	98	115	121 cn	121 cn	28	26	115
410-227544-6	DC340005-SPOT	109	91	108	102 cn	105 cn	25	25	105
410-227544-7	DC340005-SPOT-2	0.3 *5- cn	8 *5- cn	25	23 cn	22 cn	0.9 *5-	5 *5- cn	14
410-227544-8	DC340005-DET	1 *5- cn	54 cn	66 cn	34 cn	2 *5- cn	8 *5- cn	0.3 *5- cn	151 cn
410-227544-9	DC340005-DET-2	116	100	116	167 cn	261 *5+ cn	58	48	114
410-227544-10	DC340005-DET-3	119	99	119	27	87	48	14	121
410-227544-11	DC340005-WW-BASIN	111	93	107	107	113	20	21	112
410-227544-15	DC340005-DUP-2	120	108	125	113	120	26	26	131
LCS 410-664522/2-B	Lab Control Sample	99	84	100	101	109	22	22	104
LCSD 410-664522/3-B	Lab Control Sample Dup	102	91	112	113	121	26	25	112
MB 410-664522/1-B	Method Blank	113	98	117	120	125	15	15	117

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C5PHA (10-176)	C6PFDA (19-168)	13C7PUA (10-182)	d3NMFSA (10-137)	d5NPFSA (10-130)	PFOSA (10-149)	PFDoDA (10-183)	C9PFNA (10-198)
410-227544-1	DC340005-SS	43	57	40	28 cn	23 cn	42	23	68
410-227544-2	DC340005-WW-PRE	112	108	106	13 cn	12 cn	84	103	108
410-227544-3	DC340005-WW-POST	114	107	87	19 cn	9 *5- cn	63	54	104
410-227544-4	DC340005-MIST-PRE	125	115	113	8 *5- cn	8 *5- cn	73	120	111
410-227544-5	DC340005-MIST-POST	115	109	112	14 cn	11 cn	81	109	106
410-227544-6	DC340005-SPOT	110	104	98	13 cn	13 cn	78	103	99
410-227544-7	DC340005-SPOT-2	0.9 *5- cn	16 *5- cn	18	2 *5- cn	18 cn	16	0.1 *5-	15
410-227544-8	DC340005-DET	5 *5- cn	47 cn	0.4 *5- cn	12 cn	1 *5- cn	3 *5- cn	24 cn	48 cn

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C5PHA (10-176)	C6PFDA (19-168)	13C7PUA (10-182)	d3NMFSA (10-137)	d5NPFSA (10-130)	PFOSA (10-149)	PFDoDA (10-183)	C9PFNA (10-198)
410-227544-9	DC340005-DET-2	120	111	108	52 cn	44 cn	81	94	123
410-227544-10	DC340005-DET-3	119	114	61	34 cn	12 cn	38	30	109
410-227544-11	DC340005-WW-BASIN	110	107	102	7 *5- cn	7 *5- cn	80	102	97
410-227544-15	DC340005-DUP-2	127	115	119	10 cn	9 *5- cn	84	122	116
LCS 410-664522/2-B	Lab Control Sample	101	97	95	8 *5-	7 *5-	73	98	91
LCSD 410-664522/3-B	Lab Control Sample Dup	112	103	109	8 *5-	8 *5-	87	110	101
MB 410-664522/1-B	Method Blank	125	112	111	5 *5-	5 *5-	82	115	107

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	MFHEA (10-185)							
410-227544-1	DC340005-SS	67							
410-227544-2	DC340005-WW-PRE	98							
410-227544-3	DC340005-WW-POST	106							
410-227544-4	DC340005-MIST-PRE	110							
410-227544-5	DC340005-MIST-POST	105							
410-227544-6	DC340005-SPOT	95							
410-227544-7	DC340005-SPOT-2	2 *5- cn							
410-227544-8	DC340005-DET	3 *5- cn							
410-227544-9	DC340005-DET-2	110							
410-227544-10	DC340005-DET-3	100							
410-227544-11	DC340005-WW-BASIN	95							
410-227544-15	DC340005-DUP-2	104							
LCS 410-664522/2-B	Lab Control Sample	88							
LCSD 410-664522/3-B	Lab Control Sample Dup	103							
MB 410-664522/1-B	Method Blank	109							

Surrogate Legend

M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
PFTDA = 13C2-PFTeDA
HFPODA = 13C3-HFPO-DA
C3PFBS = 13C3-PFBS
PFBA = 13C4-PFBA
C4PFHA = 13C4-PFHpA
PFPeA = 13C5-PFPeA
C8PFOA = 13C8-PFOA
C8PFOS = 13C8-PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
C3PFHS = 13C3-PFHxS
13C5PHA = 13C5-PFHxA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
PFOSA = 13C8-PFOSA
PFDoDA = 13C2-PFDoA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

C9PFNA = 13C9-PFNA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-168)	(15-189)	(20-165)	(33-166)	(40-154)	(39-162)	(41-153)	(35-161)
LCS 410-665342/3-B	Lab Control Sample	140	133	125	138	135	147	138	123
LCS 410-665342/3-B	Lab Control Sample	140	129	127	137	130	153	141	136
LCS 410-669876/3-B	Lab Control Sample	104	101	99	104	93	105	106	111
LCSD 410-665342/4-B	Lab Control Sample Dup	134	128	113	122	123	147	136	120
LCSD 410-665342/4-B	Lab Control Sample Dup	128	119	126	135	125	138	131	134
LCSD 410-669876/4-B	Lab Control Sample Dup	104	104	102	104	93	106	106	102
MB 410-665342/1-B	Method Blank	152	141	148	160	148	171 *5+	156 *5+	162 *5+
MB 410-665342/2-B	Method Blank	159	149	139	150	150	175 *5+	155 *5+	140
MB 410-669876/2-B	Method Blank	101	97	94	98	93	106	99	104

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(22-165)	(17-156)	(27-200)	(39-164)	(44-153)	(11-149)	(30-180)	(26-200)
LCS 410-665342/3-B	Lab Control Sample	109	136	119	139	138	116	117	139
LCS 410-665342/3-B	Lab Control Sample	120	131	124	133	140	105	135	138
LCS 410-669876/3-B	Lab Control Sample	92	105	103	103	103	73	110	82
LCSD 410-665342/4-B	Lab Control Sample Dup	108	136	114	126	129	118	115	120
LCSD 410-665342/4-B	Lab Control Sample Dup	116	124	113	130	131	102	131	125
LCSD 410-669876/4-B	Lab Control Sample Dup	90	99	103	104	103	72	102	89
MB 410-665342/1-B	Method Blank	137	152	139	152	158 *5+	122	164	141
MB 410-665342/2-B	Method Blank	121	155	137	153	156 *5+	132	132	146
MB 410-669876/2-B	Method Blank	96	105	98	101	104	71	100	78

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA
Lab Sample ID	Client Sample ID	(27-200)	(11-166)	(10-154)	(10-146)	(10-130)	(10-130)	(15-182)
LCS 410-665342/3-B	Lab Control Sample	126	123	88	96	108	106	77
LCS 410-665342/3-B	Lab Control Sample	148	141	100	109	97	95	74
LCS 410-669876/3-B	Lab Control Sample	94	96	66	67	67	66	56
LCSD 410-665342/4-B	Lab Control Sample Dup	115	112	77	83	93	98	78
LCSD 410-665342/4-B	Lab Control Sample Dup	138	134	85	87	82	76	63
LCSD 410-669876/4-B	Lab Control Sample Dup	103	95	69	72	73	68	56
MB 410-665342/1-B	Method Blank	173	157	99	104	98	95	80
MB 410-665342/2-B	Method Blank	145	131	86	89	106	108	89
MB 410-669876/2-B	Method Blank	93	90	72	74	75	73	56

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-168)	PFPeA (15-189)	13C5PHA (20-165)	C4PFHA (33-166)	C8PFOA (40-154)	C9PFNA (39-162)	C6PFDA (41-153)	13C7PUA (35-161)
410-227544-1	DC340005-SS	77	89	57	74	63	61	69	41
410-227544-1 - DL	DC340005-SS								
410-227544-2	DC340005-WW-PRE	147	153	108	125	138	166 *5+ cn	147	124
410-227544-3	DC340005-WW-POST	154	174	115	134	146	165 *5+ cn	146	126
410-227544-4	DC340005-MIST-PRE	149	152	122	133	138	168 *5+ cn	147	124
410-227544-5	DC340005-MIST-POST	152	153	126	141	147	163 *5+ cn	146	127
410-227544-6	DC340005-SPOT	119	149	104	120	129	147	137	124
410-227544-7	DC340005-SPOT-2	29 cn	91 cn	109 cn	136 cn	128 cn	84 cn	129 cn	112 cn
410-227544-8	DC340005-DET	117 cn	156 cn	86 cn	79 cn	93 cn	67 cn	91 cn	0.8 *5- cn
410-227544-9	DC340005-DET-2	142	156	96	118	133	142	135	118
410-227544-10	DC340005-DET-3	145	168	111	128	139	164 *5+ cn	145	125
410-227544-11	DC340005-WW-BASIN	102	111	101	101	96	111	100	97

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoDA (22-165)	PFTDA (17-156)	C3PFBS (27-200)	C3PFHS (39-164)	C8PFOS (44-153)	PFOSA (11-149)	d5NEFOS (30-180)	M262FTS (26-200)
410-227544-1	DC340005-SS	24	31	114	86	68	28	65	251 *5+
410-227544-1 - DL	DC340005-SS			125					
410-227544-2	DC340005-WW-PRE	108	121	148	136	148	109	271 *5+ cn	233 *5+ cn
410-227544-3	DC340005-WW-POST	112	144	169	144	151	85	185 *5+ cn	208 *5+ cn
410-227544-4	DC340005-MIST-PRE	117	140	140	140	149	98	135	151
410-227544-5	DC340005-MIST-POST	124	152	144	149	146	118	135	161
410-227544-6	DC340005-SPOT	115	146	143	132	140	123	136	148
410-227544-7	DC340005-SPOT-2	120 cn	10 *5- cn	223 *5+ cn	248 *5+ cn	112 cn	83 cn	198 *5+ cn	368 *5+ cn
410-227544-8	DC340005-DET	125 cn	71 cn	276 *5+ cn	116 cn	91 cn	9 *5- cn	1 *5- cn	245 *5+ cn
410-227544-9	DC340005-DET-2	104	139	143	127	134	111	147	209 *5+ cn
410-227544-10	DC340005-DET-3	108	137	151	142	143	113	150	209 *5+ cn
410-227544-11	DC340005-WW-BASIN	92	100	119	106	104	75	97	96

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Post-Treatment

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	M282FTS (27-200)	HFPODA (11-166)	NMFM (10-154)	NEFM (10-146)	d5NPFSA (10-130)	d3NMFSA (10-130)	MFHEA (15-182)
410-227544-1	DC340005-SS	270 *5+	62	26	11	9 *5-	20	28
410-227544-1 - DL	DC340005-SS			157 *5+	114			
410-227544-2	DC340005-WW-PRE	469 *5+ cn	117	93	90	64	72	60
410-227544-3	DC340005-WW-POST	293 *5+ cn	123	49	45	8 *5- cn	9 *5- cn	55
410-227544-4	DC340005-MIST-PRE	195	117	86	81	52	59	69
410-227544-5	DC340005-MIST-POST	188	122	96	97	72	81	80
410-227544-6	DC340005-SPOT	168	114	106	96	118	125	63
410-227544-7	DC340005-SPOT-2	377 *5+ cn	112 cn	92 cn	78 cn	94 cn	97 cn	78 cn
410-227544-8	DC340005-DET	411 *5+ cn	43 cn	41 cn	11 cn	4 *5- cn	58 cn	30 cn
410-227544-9	DC340005-DET-2	266 *5+ cn	106	95	90	105	120	63
410-227544-10	DC340005-DET-3	289 *5+ cn	116	90	93	104	113	74
410-227544-11	DC340005-WW-BASIN	116	93	79	79	66	67	61

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-664522/1-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 664522

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		06/29/25 11:03	07/08/25 20:42	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	150	ng/L		06/29/25 11:03	07/08/25 20:42	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-664522/1-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 664522

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	150	ng/L		06/29/25 11:03	07/08/25 20:42	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*130*		*19 - 191*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C2-6:2 FTS	*139*		*13 - 200*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C2-8:2 FTS	*144*		*10 - 200*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C2-PFTeDA	*99*		*10 - 186*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C3-HFPO-DA	*104*		*10 - 140*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C3-PFBS	*128*		*24 - 176*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C4-PFBA	*110*		*26 - 162*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C4-PFHpA	*112*		*10 - 193*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C5-PFPeA	*113*		*15 - 162*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C8-PFOA	*98*		*27 - 160*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C8-PFOS	*117*		*22 - 172*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d3-NMeFOSAA	*120*		*10 - 198*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d5-NEtFOSAA	*125*		*10 - 200*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d7-N-MeFOSE-M	*15*		*10 - 181*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d9-N-EtFOSE-M	*15*		*10 - 182*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C3-PFHxS	*117*		*11 - 180*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C5-PFHxA	*125*		*10 - 176*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C6-PFDA	*112*		*19 - 168*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C7-PFUnA	*111*		*10 - 182*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d3-NMePFOSA	*5*	*5-	*10 - 137*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d5-NEtPFOSA	*5*	*5-	*10 - 130*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C8-PFOSA	*82*		*10 - 149*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C2-PFDoA	*115*		*10 - 183*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C9-PFNA	*107*		*10 - 198*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C-6:2 FTCA	*109*		*10 - 185*	*06/29/25 11:03*	*07/08/25 20:42*	*1*

Lab Sample ID: LCS 410-664522/2-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4850		ng/L		80	61 - 131
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	4870		ng/L		81	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	4730		ng/L		78	58 - 136

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-664522/2-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	5050		ng/L		82	57 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	5020		ng/L		84	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	5000		ng/L		83	55 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	6930		ng/L		108	50 - 137
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	5210		ng/L		81	53 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	5390		ng/L		84	59 - 137
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	5480		ng/L		86	59 - 135
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	5400		ng/L		84	54 - 131
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	6040		ng/L		94	61 - 134
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	6050		ng/L		95	58 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	4460		ng/L		78	56 - 130
Perfluorobutanoic acid (PFBA)	6400	5360		ng/L		84	54 - 144
Perfluorodecanesulfonic acid (PFDS)	6170	4790		ng/L		78	63 - 130
Perfluorodecanoic acid (PFDA)	6400	5390		ng/L		84	61 - 135
Perfluorododecanesulfonic acid (PFDoS)	6210	4660		ng/L		75	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	5590		ng/L		87	60 - 133
Perfluoroheptanesulfonic acid (PFHpS)	6090	4570		ng/L		75	51 - 132
Perfluoroheptanoic acid (PFHpA)	6400	5390		ng/L		84	54 - 133
Perfluorohexanesulfonic acid (PFHxS)	5840	4640		ng/L		80	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	5470		ng/L		85	55 - 132
Perfluorononanesulfonic acid (PFNS)	6160	5090		ng/L		83	65 - 136
Perfluorononanoic acid (PFNA)	6400	5120		ng/L		80	50 - 140
Perfluorooctanesulfonamide (PFOSA)	6400	5650		ng/L		88	62 - 136
Perfluorooctanesulfonic acid (PFOS)	5950	5200		ng/L		87	37 - 149
Perfluorooctanoic acid (PFOA)	6400	5840		ng/L		91	60 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	4700		ng/L		78	59 - 130
Perfluoropentanoic acid (PFPeA)	6400	5240		ng/L		82	59 - 133
Perfluorotetradecanoic acid (PFTeDA)	6400	5590		ng/L		87	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	5090		ng/L		80	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	5720		ng/L		89	58 - 133

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-664522/2-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664522

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4500		ng/L		79	34 - 134		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	4780		ng/L		75	10 - 155		
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5380		ng/L		84	53 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	5780		ng/L		90	10 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	4210		ng/L		66	46 - 133		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	5210		ng/L		81	14 - 142		
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	5130		ng/L		80	52 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2-4:2 FTS	*109*		*19 - 191*
13C2-6:2 FTS	*122*		*13 - 200*
13C2-8:2 FTS	*126*		*10 - 200*
13C2-PFTeDA	*89*		*10 - 186*
13C3-HFPO-DA	*73*		*10 - 140*
13C3-PFBS	*108*		*24 - 176*
13C4-PFBA	*94*		*26 - 162*
13C4-PFHpA	*102*		*10 - 193*
13C5-PFPeA	*99*		*15 - 162*
13C8-PFOA	*84*		*27 - 160*
13C8-PFOS	*100*		*22 - 172*
d3-NMeFOSAA	*101*		*10 - 198*
d5-NEtFOSAA	*109*		*10 - 200*
d7-N-MeFOSE-M	*22*		*10 - 181*
d9-N-EtFOSE-M	*22*		*10 - 182*
13C3-PFHxS	*104*		*11 - 180*
13C5-PFHxA	*101*		*10 - 176*
13C6-PFDA	*97*		*19 - 168*
13C7-PFUnA	*95*		*10 - 182*
d3-NMePFOSA	*8*	*5-	*10 - 137*
d5-NEtPFOSA	*7*	*5-	*10 - 130*
13C8-PFOSA	*73*		*10 - 149*
13C2-PFDoA	*98*		*10 - 183*
13C9-PFNA	*91*		*10 - 198*
13C-6:2 FTCA	*88*		*10 - 185*

Lab Sample ID: LCSD 410-664522/3-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 664522

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	4650		ng/L		77	61 - 131	4	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-664522/3-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 664522

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			6000	5040		ng/L		84	57 - 130	3	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			6090	5400		ng/L		89	58 - 136	13	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			6140	5270		ng/L		86	57 - 134	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	4930		ng/L		82	59 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)			6050	4960		ng/L		82	55 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			6400	7310		ng/L		114	50 - 137	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			6400	5260		ng/L		82	53 - 130	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			6400	4900		ng/L		77	59 - 137	9	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			6400	5920		ng/L		92	59 - 135	8	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			6400	5500		ng/L		86	54 - 131	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			6400	5670		ng/L		89	61 - 134	6	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			6400	6230		ng/L		97	58 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)			5680	4470		ng/L		79	56 - 130	0	30
Perfluorobutanoic acid (PFBA)			6400	5430		ng/L		85	54 - 144	1	30
Perfluorodecanesulfonic acid (PFDS)			6170	4890		ng/L		79	63 - 130	2	30
Perfluorodecanoic acid (PFDA)			6400	5520		ng/L		86	61 - 135	2	30
Perfluorododecanesulfonic acid (PFDoS)			6210	4510		ng/L		73	59 - 130	3	30
Perfluorododecanoic acid (PFDoA)			6400	5530		ng/L		86	60 - 133	1	30
Perfluoroheptanesulfonic acid (PFHpS)			6090	4820		ng/L		79	51 - 132	5	30
Perfluoroheptanoic acid (PFHpA)			6400	5520		ng/L		86	54 - 133	2	30
Perfluorohexanesulfonic acid (PFHxS)			5840	4670		ng/L		80	56 - 130	1	30
Perfluorohexanoic acid (PFHxA)			6400	5400		ng/L		84	55 - 132	1	30
Perfluorononanesulfonic acid (PFNS)			6160	4950		ng/L		80	65 - 136	3	30
Perfluorononanoic acid (PFNA)			6400	4940		ng/L		77	50 - 140	4	30
Perfluorooctanesulfonamide (PFOSA)			6400	5530		ng/L		86	62 - 136	2	30
Perfluorooctanesulfonic acid (PFOS)			5950	5170		ng/L		87	37 - 149	1	30
Perfluorooctanoic acid (PFOA)			6400	5690		ng/L		89	60 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)			6020	4480		ng/L		75	59 - 130	5	30
Perfluoropentanoic acid (PFPeA)			6400	5110		ng/L		80	59 - 133	2	30
Perfluorotetradecanoic acid (PFTeDA)			6400	5390		ng/L		84	62 - 130	4	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-664522/3-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 664522

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorotridecanoic acid (PFTrDA)			6400	5060		ng/L		79	53 - 133	1	30
Perfluoroundecanoic acid (PFUnA)			6400	6150		ng/L		96	58 - 133	7	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4240		ng/L		74	34 - 134	6	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5730		ng/L		89	10 - 155	18	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5370		ng/L		84	53 - 135	0	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	5540		ng/L		87	10 - 150	4	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	3960		ng/L		62	46 - 133	6	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	5930		ng/L		93	14 - 142	13	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	4960		ng/L		78	52 - 130	3	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2-4:2 FTS	*119*		*19 - 191*
13C2-6:2 FTS	*123*		*13 - 200*
13C2-8:2 FTS	*136*		*10 - 200*
13C2-PFTeDA	*98*		*10 - 186*
13C3-HFPO-DA	*92*		*10 - 140*
13C3-PFBS	*121*		*24 - 176*
13C4-PFBA	*102*		*26 - 162*
13C4-PFHpA	*110*		*10 - 193*
13C5-PFPeA	*102*		*15 - 162*
13C8-PFOA	*91*		*27 - 160*
13C8-PFOS	*112*		*22 - 172*
d3-NMeFOSAA	*113*		*10 - 198*
d5-NEtFOSAA	*121*		*10 - 200*
d7-N-MeFOSE-M	*26*		*10 - 181*
d9-N-EtFOSE-M	*25*		*10 - 182*
13C3-PFHxS	*112*		*11 - 180*
13C5-PFHxA	*112*		*10 - 176*
13C6-PFDA	*103*		*19 - 168*
13C7-PFUnA	*109*		*10 - 182*
d3-NMePFOSA	*8*	*5-	*10 - 137*
d5-NEtPFOSA	*8*	*5-	*10 - 130*
13C8-PFOSA	*87*		*10 - 149*
13C2-PFDoA	*110*		*10 - 183*
13C9-PFNA	*101*		*10 - 198*
13C-6:2 FTCA	*103*		*10 - 185*

Method: 537 TOP - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-665342/1-B
Matrix: Water
Analysis Batch: 668965

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 665342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorodecanoic acid (PFDA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 13:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/01/25 07:12	07/10/25 13:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/01/25 07:12	07/10/25 13:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/01/25 07:12	07/10/25 13:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/01/25 07:12	07/10/25 13:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 13:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/10/25 13:17	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/10/25 13:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/01/25 07:12	07/10/25 13:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 13:17	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-665342/1-B
Matrix: Water
Analysis Batch: 668965

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 665342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 13:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/10/25 13:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 13:17	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/10/25 13:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		07/01/25 07:12	07/10/25 13:17	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*152*		*10 - 168*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C5 PFPeA	*141*		*15 - 189*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C5 PFHxA	*148*		*20 - 165*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C4 PFHpA	*160*		*33 - 166*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C8 PFOA	*148*		*40 - 154*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C9 PFNA	*171*	**5+*	*39 - 162*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C6 PFDA	*156*	**5+*	*41 - 153*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C7 PFUnA	*162*	**5+*	*35 - 161*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C2-PFDoDA	*137*		*22 - 165*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C2 PFTeDA	*152*		*17 - 156*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C3 PFBS	*139*		*27 - 200*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C3 PFHxS	*152*		*39 - 164*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C8 PFOS	*158*	**5+*	*44 - 153*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C8 FOSA	*122*		*11 - 149*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
d5-NEtFOSAA	*164*		*30 - 180*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
M2-6:2 FTS	*141*		*26 - 200*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
M2-8:2 FTS	*173*		*27 - 200*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C3 HFPO-DA	*157*		*11 - 166*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
d7-N-MeFOSE-M	*99*		*10 - 154*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
d9-N-EtFOSE-M	*104*		*10 - 146*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
d5-NEtPFOSA	*98*		*10 - 130*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
d3-NMePFOSA	*95*		*10 - 130*	*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C-6:2 FTCA	*80*		*15 - 182*	*07/01/25 07:12*	*07/10/25 13:17*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C4 PFOA				*07/01/25 07:12*	*07/10/25 13:17*	*1*
13C2 PFUnA				*07/01/25 07:12*	*07/10/25 13:17*	*1*

Lab Sample ID: MB 410-665342/2-B
Matrix: Water
Analysis Batch: 667309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 665342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-665342/2-B
Matrix: Water
Analysis Batch: 667309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 665342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorodecanoic acid (PFDA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 19:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/01/25 07:12	07/05/25 19:33	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/01/25 07:12	07/05/25 19:33	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 19:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 19:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 19:33	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 19:33	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/01/25 07:12	07/05/25 19:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/01/25 07:12	07/05/25 19:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 19:33	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 19:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/01/25 07:12	07/05/25 19:33	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-665342/2-B
Matrix: Water
Analysis Batch: 667309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 665342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 19:33	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/01/25 07:12	07/05/25 19:33	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		07/01/25 07:12	07/05/25 19:33	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*159*		*10 - 168*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C5 PFPeA	*149*		*15 - 189*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C5 PFHxA	*139*		*20 - 165*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C4 PFHpA	*150*		*33 - 166*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C8 PFOA	*150*		*40 - 154*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C9 PFNA	*175*	**5+*	*39 - 162*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C6 PFDA	*155*	**5+*	*41 - 153*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C7 PFUnA	*140*		*35 - 161*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C2-PFDoDA	*121*		*22 - 165*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C2 PFTeDA	*155*		*17 - 156*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C3 PFBS	*137*		*27 - 200*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C3 PFHxS	*153*		*39 - 164*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C8 PFOS	*156*	**5+*	*44 - 153*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C8 FOSA	*132*		*11 - 149*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
d5-NEtFOSAA	*132*		*30 - 180*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
M2-6:2 FTS	*146*		*26 - 200*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
M2-8:2 FTS	*145*		*27 - 200*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C3 HFPO-DA	*131*		*11 - 166*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
d7-N-MeFOSE-M	*86*		*10 - 154*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
d9-N-EtFOSE-M	*89*		*10 - 146*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
d5-NEtPFOSA	*106*		*10 - 130*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
d3-NMePFOSA	*108*		*10 - 130*	*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C-6:2 FTCA	*89*		*15 - 182*	*07/01/25 07:12*	*07/05/25 19:33*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C4 PFOA				*07/01/25 07:12*	*07/05/25 19:33*	*1*
13C2 PFUnA				*07/01/25 07:12*	*07/05/25 19:33*	*1*

Lab Sample ID: LCS 410-665342/3-B
Matrix: Water
Analysis Batch: 667309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	6400	6540		ng/L		102	56 - 130
Perfluoropentanoic acid (PFPeA)	6400	6800		ng/L		106	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	6010		ng/L		94	54 - 130
Perfluoroheptanoic acid (PFHpA)	6400	6350		ng/L		99	57 - 130
Perfluorooctanoic acid (PFOA)	6400	6480		ng/L		101	58 - 130
Perfluorononanoic acid (PFNA)	6400	6260		ng/L		98	61 - 130
Perfluorodecanoic acid (PFDA)	6400	6950		ng/L		109	61 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-665342/3-B
Matrix: Water
Analysis Batch: 667309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	6400	6890		ng/L		108	60 - 130
Perfluorododecanoic acid (PFDoA)	6400	7180		ng/L		112	59 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	7740		ng/L		121	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	6400	6720		ng/L		105	59 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	5880		ng/L		104	58 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	5730		ng/L		95	55 - 130
Perfluorohexanesulfonic acid (PFHxS)	5840	5930		ng/L		102	59 - 130
Perfluoroheptanesulfonic acid (PFHpS)	6090	6590		ng/L		108	55 - 130
Perfluorooctanesulfonic acid (PFOS)	5950	6550		ng/L		110	59 - 130
Perfluorononanesulfonic acid (PFNS)	6160	5560		ng/L		90	58 - 130
Perfluorodecanesulfonic acid (PFDS)	6170	5340		ng/L		87	53 - 130
Perfluorododecanesulfonic acid (PFDoS)	6210	6310		ng/L		102	51 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	4810		ng/L		80	59 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	6370		ng/L		105	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	6900		ng/L		112	55 - 130
Perfluorooctanesulfonamide (PFOSA)	6400	7230		ng/L		113	64 - 133
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	6090		ng/L		95	59 - 148
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	6390		ng/L		100	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	6580		ng/L		103	58 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	6440		ng/L		101	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	6890		ng/L		108	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	7130		ng/L		111	61 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	5780		ng/L		90	47 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6050	5820		ng/L		96	57 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	6400	6570		ng/L		103	56 - 137
Perfluoro-4-methoxybutanoic acid (PFMBA)	6400	7410		ng/L		116	49 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6400	6730		ng/L		105	50 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-665342/3-B
Matrix: Water
Analysis Batch: 667309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	5590		ng/L		94	58 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	5240		ng/L		87	55 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	5710	5240		ng/L		92	50 - 130
3-Perfluoropropylpropanoic acid (3:3 FTCA)	6400	7520		ng/L		117	34 - 148
3-Perfluoropentylpropanoic acid (5:3 FTCA)	6400	6190		ng/L		97	45 - 139
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	6400	12700	*+	ng/L		198	38 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*140*		*10 - 168*
13C5 PFPeA	*133*		*15 - 189*
13C5 PFHxA	*125*		*20 - 165*
13C4 PFHpA	*138*		*33 - 166*
13C8 PFOA	*135*		*40 - 154*
13C9 PFNA	*147*		*39 - 162*
13C6 PFDA	*138*		*41 - 153*
13C7 PFUnA	*123*		*35 - 161*
13C2-PFDoDA	*109*		*22 - 165*
13C2 PFTeDA	*136*		*17 - 156*
13C3 PFBS	*119*		*27 - 200*
13C3 PFHxS	*139*		*39 - 164*
13C8 PFOS	*138*		*44 - 153*
13C8 FOSA	*116*		*11 - 149*
d5-NEtFOSAA	*117*		*30 - 180*
M2-6:2 FTS	*139*		*26 - 200*
M2-8:2 FTS	*126*		*27 - 200*
13C3 HFPO-DA	*123*		*11 - 166*
d7-N-MeFOSE-M	*88*		*10 - 154*
d9-N-EtFOSE-M	*96*		*10 - 146*
d5-NEtPFOSA	*108*		*10 - 130*
d3-NMePFOSA	*106*		*10 - 130*
13C-6:2 FTCA	*77*		*15 - 182*

Lab Sample ID: LCS 410-665342/3-B
Matrix: Water
Analysis Batch: 668965

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	6400	6490		ng/L		101	56 - 130
Perfluoropentanoic acid (PFPeA)	6400	6470		ng/L		101	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	5930	I	ng/L		93	54 - 130
Perfluoroheptanoic acid (PFHpA)	6400	6430	I	ng/L		100	57 - 130
Perfluorooctanoic acid (PFOA)	6400	6360	I	ng/L		99	58 - 130
Perfluorononanoic acid (PFNA)	6400	6030	I	ng/L		94	61 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-665342/3-B
Matrix: Water
Analysis Batch: 668965

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorodecanoic acid (PFDA)	6400	6960	I	ng/L		109	61 - 130
Perfluoroundecanoic acid (PFUnA)	6400	6790	I	ng/L		106	60 - 130
Perfluorododecanoic acid (PFDoA)	6400	7490	I	ng/L		117	59 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	7120	I	ng/L		111	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	6400	6710	I	ng/L		105	59 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	5740		ng/L		101	58 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	6640		ng/L		110	55 - 130
Perfluorohexanesulfonic acid (PFHxS)	5840	5960		ng/L		102	59 - 130
Perfluoroheptanesulfonic acid (PFHpS)	6090	6050		ng/L		99	55 - 130
Perfluorooctanesulfonic acid (PFOS)	5950	6720		ng/L		113	59 - 130
Perfluorononanesulfonic acid (PFNS)	6160	6340		ng/L		103	58 - 130
Perfluorodecanesulfonic acid (PFDS)	6170	6470	I	ng/L		105	53 - 130
Perfluorododecanesulfonic acid (PFDoS)	6210	6680		ng/L		108	51 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5640		ng/L		94	59 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	6410		ng/L		105	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	6100		ng/L		99	55 - 130
Perfluorooctanesulfonamide (PFOSA)	6400	7040		ng/L		110	64 - 133
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	5620		ng/L		88	59 - 148
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	5680		ng/L		89	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	5970	I	ng/L		93	58 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	6390		ng/L		100	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	6360		ng/L		99	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	6060		ng/L		95	61 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	5330		ng/L		83	47 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6050	6040		ng/L		100	57 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	6400	6250		ng/L		98	56 - 137
Perfluoro-4-methoxybutanoic acid (PFMBA)	6400	6870		ng/L		107	49 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6400	6600		ng/L		103	50 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-665342/3-B
Matrix: Water
Analysis Batch: 668965

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665342

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	5780		ng/L		97	58 - 130		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	6200		ng/L		103	55 - 130		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	6060		ng/L		106	50 - 130		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5840		ng/L		91	34 - 148		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	6500		ng/L		102	45 - 139		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	11200	*+	ng/L		175	38 - 135		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*140*		*10 - 168*
13C5 PFPeA	*129*		*15 - 189*
13C5 PFHxA	*127*		*20 - 165*
13C4 PFHpA	*137*		*33 - 166*
13C8 PFOA	*130*		*40 - 154*
13C9 PFNA	*153*		*39 - 162*
13C6 PFDA	*141*		*41 - 153*
13C7 PFUnA	*136*		*35 - 161*
13C2-PFDoDA	*120*		*22 - 165*
13C2 PFTeDA	*131*		*17 - 156*
13C3 PFBS	*124*		*27 - 200*
13C3 PFHxS	*133*		*39 - 164*
13C8 PFOS	*140*		*44 - 153*
13C8 FOSA	*105*		*11 - 149*
d5-NEtFOSAA	*135*		*30 - 180*
M2-6:2 FTS	*138*		*26 - 200*
M2-8:2 FTS	*148*		*27 - 200*
13C3 HFPO-DA	*141*		*11 - 166*
d7-N-MeFOSE-M	*100*		*10 - 154*
d9-N-EtFOSE-M	*109*		*10 - 146*
d5-NEtPFOSA	*97*		*10 - 130*
d3-NMePFOSA	*95*		*10 - 130*
13C-6:2 FTCA	*74*		*15 - 182*

Lab Sample ID: LCSD 410-665342/4-B
Matrix: Water
Analysis Batch: 667309

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 665342

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			6400	6370		ng/L		100	56 - 130	3	30
Perfluoropentanoic acid (PFPeA)			6400	6680		ng/L		104	56 - 130	2	30
Perfluorohexanoic acid (PFHxA)			6400	6110		ng/L		95	54 - 130	2	30
Perfluoroheptanoic acid (PFHpA)			6400	6620		ng/L		103	57 - 130	4	30
Perfluorooctanoic acid (PFOA)			6400	6470		ng/L		101	58 - 130	0	30
Perfluorononanoic acid (PFNA)			6400	6010		ng/L		94	61 - 130	4	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-665342/4-B
Matrix: Water
Analysis Batch: 667309

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 665342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorodecanoic acid (PFDA)	6400	6860		ng/L		107	61 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	6400	7070		ng/L		110	60 - 130	2	30
Perfluorododecanoic acid (PFDoA)	6400	7470		ng/L		117	59 - 130	4	30
Perfluorotridecanoic acid (PFTrDA)	6400	8120		ng/L		127	56 - 130	5	30
Perfluorotetradecanoic acid (PFTeDA)	6400	7090		ng/L		111	59 - 130	5	30
Perfluorobutanesulfonic acid (PFBS)	5680	5770		ng/L		102	58 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	6020	5670		ng/L		94	55 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	5840	5880		ng/L		101	59 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	6090	6750		ng/L		111	55 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	5950	6660		ng/L		112	59 - 130	2	30
Perfluorononanesulfonic acid (PFNS)	6160	5530		ng/L		90	58 - 130	0	30
Perfluorodecanesulfonic acid (PFDS)	6170	5440		ng/L		88	53 - 130	2	30
Perfluorododecanesulfonic acid (PFDoS)	6210	6430		ng/L		104	51 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5080		ng/L		85	59 - 130	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	6680		ng/L		110	56 - 130	5	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	7090		ng/L		115	55 - 130	3	30
Perfluorooctanesulfonamide (PFOSA)	6400	7340		ng/L		115	64 - 133	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	5720		ng/L		89	59 - 148	6	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	6730		ng/L		105	60 - 140	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	6340		ng/L		99	58 - 130	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	6740		ng/L		105	57 - 130	4	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	7170		ng/L		112	60 - 130	4	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	7140		ng/L		112	61 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	6060		ng/L		95	47 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6050	6190		ng/L		102	57 - 130	6	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	6400	6460		ng/L		101	56 - 137	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	6400	7240		ng/L		113	49 - 130	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6400	6650		ng/L		104	50 - 130	1	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-665342/4-B
Matrix: Water
Analysis Batch: 667309

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 665342

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	5560		ng/L		93	58 - 130	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	5280		ng/L		87	55 - 130	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	5350		ng/L		94	50 - 130	2	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	7430		ng/L		116	34 - 148	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	6460		ng/L		101	45 - 139	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	12100	*+	ng/L		189	38 - 135	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*134*		*10 - 168*
13C5 PFPeA	*128*		*15 - 189*
13C5 PFHxA	*113*		*20 - 165*
13C4 PFHpA	*122*		*33 - 166*
13C8 PFOA	*123*		*40 - 154*
13C9 PFNA	*147*		*39 - 162*
13C6 PFDA	*136*		*41 - 153*
13C7 PFUnA	*120*		*35 - 161*
13C2-PFDoDA	*108*		*22 - 165*
13C2 PFTeDA	*136*		*17 - 156*
13C3 PFBS	*114*		*27 - 200*
13C3 PFHxS	*126*		*39 - 164*
13C8 PFOS	*129*		*44 - 153*
13C8 FOSA	*118*		*11 - 149*
d5-NEtFOSAA	*115*		*30 - 180*
M2-6:2 FTS	*120*		*26 - 200*
M2-8:2 FTS	*115*		*27 - 200*
13C3 HFPO-DA	*112*		*11 - 166*
d7-N-MeFOSE-M	*77*		*10 - 154*
d9-N-EtFOSE-M	*83*		*10 - 146*
d5-NEtPFOSA	*93*		*10 - 130*
d3-NMePFOSA	*98*		*10 - 130*
13C-6:2 FTCA	*78*		*15 - 182*

Lab Sample ID: LCSD 410-665342/4-B
Matrix: Water
Analysis Batch: 668965

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 665342

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			6400	6430		ng/L		100	56 - 130	1	30
Perfluoropentanoic acid (PFPeA)			6400	6430		ng/L		101	56 - 130	1	30
Perfluorohexanoic acid (PFHxA)			6400	5900	I	ng/L		92	54 - 130	1	30
Perfluoroheptanoic acid (PFHpA)			6400	6470	I	ng/L		101	57 - 130	1	30
Perfluorooctanoic acid (PFOA)			6400	6470	I	ng/L		101	58 - 130	2	30
Perfluorononanoic acid (PFNA)			6400	6270	I	ng/L		98	61 - 130	4	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-665342/4-B
Matrix: Water
Analysis Batch: 668965

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 665342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorodecanoic acid (PFDA)	6400	6790	I	ng/L		106	61 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	6400	6650	I	ng/L		104	60 - 130	2	30
Perfluorododecanoic acid (PFDoA)	6400	6940	I	ng/L		108	59 - 130	8	30
Perfluorotridecanoic acid (PFTrDA)	6400	6960	I	ng/L		109	56 - 130	2	30
Perfluorotetradecanoic acid (PFTeDA)	6400	6890	I	ng/L		108	59 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	5680	5670		ng/L		100	58 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	6020	6380		ng/L		106	55 - 130	4	30
Perfluorohexanesulfonic acid (PFHxS)	5840	5880		ng/L		101	59 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	6090	5850		ng/L		96	55 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	5950	6560		ng/L		110	59 - 130	2	30
Perfluorononanesulfonic acid (PFNS)	6160	6360		ng/L		103	58 - 130	0	30
Perfluorodecanesulfonic acid (PFDS)	6170	6430	I	ng/L		104	53 - 130	1	30
Perfluorododecanesulfonic acid (PFDoS)	6210	6480		ng/L		104	51 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	6340		ng/L		106	59 - 130	12	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	7000		ng/L		115	56 - 130	9	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	6250		ng/L		102	55 - 130	2	30
Perfluorooctanesulfonamide (PFOSA)	6400	7110		ng/L		111	64 - 133	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	5970		ng/L		93	59 - 148	6	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	5580		ng/L		87	60 - 140	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	5600	I	ng/L		87	58 - 130	6	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	6750		ng/L		105	57 - 130	5	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	6100		ng/L		95	60 - 130	4	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	6130		ng/L		96	61 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	5410		ng/L		84	47 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6050	6050		ng/L		100	57 - 130	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	6400	6390		ng/L		100	56 - 137	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	6400	6620		ng/L		104	49 - 130	4	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6400	6570		ng/L		103	50 - 130	0	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-665342/4-B
Matrix: Water
Analysis Batch: 668965

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 665342

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	5810		ng/L		97	58 - 130	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	6000		ng/L		99	55 - 130	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	6130		ng/L		107	50 - 130	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	6030		ng/L		94	34 - 148	3	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	6220		ng/L		97	45 - 139	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	13200	*+	ng/L		206	38 - 135	16	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*128*		*10 - 168*
13C5 PFPeA	*119*		*15 - 189*
13C5 PFHxA	*126*		*20 - 165*
13C4 PFHpA	*135*		*33 - 166*
13C8 PFOA	*125*		*40 - 154*
13C9 PFNA	*138*		*39 - 162*
13C6 PFDA	*131*		*41 - 153*
13C7 PFUnA	*134*		*35 - 161*
13C2-PFDoDA	*116*		*22 - 165*
13C2 PFTeDA	*124*		*17 - 156*
13C3 PFBS	*113*		*27 - 200*
13C3 PFHxS	*130*		*39 - 164*
13C8 PFOS	*131*		*44 - 153*
13C8 FOSA	*102*		*11 - 149*
d5-NEtFOSAA	*131*		*30 - 180*
M2-6:2 FTS	*125*		*26 - 200*
M2-8:2 FTS	*138*		*27 - 200*
13C3 HFPO-DA	*134*		*11 - 166*
d7-N-MeFOSE-M	*85*		*10 - 154*
d9-N-EtFOSE-M	*87*		*10 - 146*
d5-NEtPFOSA	*82*		*10 - 130*
d3-NMePFOSA	*76*		*10 - 130*
13C-6:2 FTCA	*63*		*15 - 182*

Lab Sample ID: MB 410-669876/2-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/11/25 07:30	07/18/25 12:15	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-669876/2-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	270	J	1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/11/25 07:30	07/18/25 12:15	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/11/25 07:30	07/18/25 12:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-669876/2-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		07/11/25 07:30	07/18/25 12:15	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 168*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C5 PFPeA	*97*		*15 - 189*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C5 PFHxA	*94*		*20 - 165*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C4 PFHpA	*98*		*33 - 166*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C8 PFOA	*93*		*40 - 154*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C9 PFNA	*106*		*39 - 162*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C6 PFDA	*99*		*41 - 153*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C7 PFUnA	*104*		*35 - 161*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C2-PFDoDA	*96*		*22 - 165*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C2 PFTeDA	*105*		*17 - 156*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C3 PFBS	*98*		*27 - 200*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C3 PFHxS	*101*		*39 - 164*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C8 PFOS	*104*		*44 - 153*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C8 FOSA	*71*		*11 - 149*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d5-NEtFOSAA	*100*		*30 - 180*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
M2-6:2 FTS	*78*		*26 - 200*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
M2-8:2 FTS	*93*		*27 - 200*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C3 HFPO-DA	*90*		*11 - 166*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d7-N-MeFOSE-M	*72*		*10 - 154*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d9-N-EtFOSE-M	*74*		*10 - 146*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d5-NEtPFOSA	*75*		*10 - 130*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d3-NMePFOSA	*73*		*10 - 130*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C-6:2 FTCA	*56*		*15 - 182*	*07/11/25 07:30*	*07/18/25 12:15*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C4 PFOA				*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C2 PFUnA				*07/11/25 07:30*	*07/18/25 12:15*	*1*

Lab Sample ID: LCS 410-669876/3-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12800	12300		ng/L		96	56 - 130
Perfluoropentanoic acid (PFPeA)	12800	12500		ng/L		97	56 - 130
Perfluorohexanoic acid (PFHxA)	12800	11700		ng/L		92	54 - 130
Perfluoroheptanoic acid (PFHpA)	12800	12400		ng/L		97	57 - 130
Perfluorooctanoic acid (PFOA)	12800	12900		ng/L		100	58 - 130
Perfluorononanoic acid (PFNA)	12800	11700		ng/L		91	61 - 130
Perfluorodecanoic acid (PFDA)	12800	12600		ng/L		99	61 - 130
Perfluoroundecanoic acid (PFUnA)	12800	11900		ng/L		93	60 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-669876/3-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanoic acid (PFDoA)	12800	13200		ng/L		103	59 - 130
Perfluorotridecanoic acid (PFTrDA)	12800	14400		ng/L		112	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	12800	12300		ng/L		96	59 - 130
Perfluorobutanesulfonic acid (PFBS)	11400	11000		ng/L		97	58 - 130
Perfluoropentanesulfonic acid (PFPeS)	12000	11300		ng/L		94	55 - 130
Perfluorohexanesulfonic acid (PFHxS)	11700	10900		ng/L		94	59 - 130
Perfluoroheptanesulfonic acid (PFHpS)	12200	11300		ng/L		93	55 - 130
Perfluorooctanesulfonic acid (PFOS)	11900	11000		ng/L		92	59 - 130
Perfluorononanesulfonic acid (PFNS)	12300	11300		ng/L		92	58 - 130
Perfluorodecanesulfonic acid (PFDS)	12300	11800		ng/L		96	53 - 130
Perfluorododecanesulfonic acid (PFDoS)	12400	12100		ng/L		97	51 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	14000		ng/L		117	59 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	13300		ng/L		109	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	12800		ng/L		104	55 - 130
Perfluorooctanesulfonamide (PFOSA)	12800	13300		ng/L		104	64 - 133
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	11500		ng/L		90	59 - 148
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	11400		ng/L		89	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	11100		ng/L		86	58 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	11500		ng/L		90	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	11800		ng/L		92	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	12800		ng/L		100	61 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	11900		ng/L		93	47 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	11300		ng/L		94	57 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	11800		ng/L		92	56 - 137
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	12100		ng/L		94	49 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	12800	11600		ng/L		91	50 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	12000	11900		ng/L		100	58 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-669876/3-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	12100	11400		ng/L		94	55 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	11400	10800		ng/L		94	50 - 130
3-Perfluoropropylpropanoic acid (3:3 FTCA)	12800	9640		ng/L		75	34 - 148
3-Perfluoropentylpropanoic acid (5:3 FTCA)	12800	9390		ng/L		73	45 - 139
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	12800	18700	*+	ng/L		146	38 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*104*		*10 - 168*
13C5 PFPeA	*101*		*15 - 189*
13C5 PFHxA	*99*		*20 - 165*
13C4 PFHpA	*104*		*33 - 166*
13C8 PFOA	*93*		*40 - 154*
13C9 PFNA	*105*		*39 - 162*
13C6 PFDA	*106*		*41 - 153*
13C7 PFUnA	*111*		*35 - 161*
13C2-PFDoDA	*92*		*22 - 165*
13C2 PFTeDA	*105*		*17 - 156*
13C3 PFBS	*103*		*27 - 200*
13C3 PFHxS	*103*		*39 - 164*
13C8 PFOS	*103*		*44 - 153*
13C8 FOSA	*73*		*11 - 149*
d5-NEtFOSAA	*110*		*30 - 180*
M2-6:2 FTS	*82*		*26 - 200*
M2-8:2 FTS	*94*		*27 - 200*
13C3 HFPO-DA	*96*		*11 - 166*
d7-N-MeFOSE-M	*66*		*10 - 154*
d9-N-EtFOSE-M	*67*		*10 - 146*
d5-NEtPFOSA	*67*		*10 - 130*
d3-NMePFOSA	*66*		*10 - 130*
13C-6:2 FTCA	*56*		*15 - 182*

Lab Sample ID: LCSD 410-669876/4-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669876

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	12800	12300		ng/L		96	56 - 130	0	30
Perfluoropentanoic acid (PFPeA)	12800	11700		ng/L		91	56 - 130	7	30
Perfluorohexanoic acid (PFHxA)	12800	12200		ng/L		95	54 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	12800	12500		ng/L		98	57 - 130	1	30
Perfluorooctanoic acid (PFOA)	12800	13000		ng/L		102	58 - 130	1	30
Perfluorononanoic acid (PFNA)	12800	11700		ng/L		92	61 - 130	1	30
Perfluorodecanoic acid (PFDA)	12800	11900		ng/L		93	61 - 130	6	30
Perfluoroundecanoic acid (PFUnA)	12800	12600		ng/L		99	60 - 130	5	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-669876/4-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669876

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorododecanoic acid (PFDoA)			12800	13000		ng/L		102	59 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)			12800	14300		ng/L		112	56 - 130	0	30
Perfluorotetradecanoic acid (PFTeDA)			12800	12400		ng/L		97	59 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)			11400	10900		ng/L		96	58 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)			12000	11400		ng/L		95	55 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)			11700	10900		ng/L		94	59 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS)			12200	11000		ng/L		90	55 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)			11900	11300		ng/L		95	59 - 130	2	30
Perfluorononanesulfonic acid (PFNS)			12300	11600		ng/L		94	58 - 130	2	30
Perfluorodecanesulfonic acid (PFDS)			12300	12200		ng/L		99	53 - 130	3	30
Perfluorododecanesulfonic acid (PFDoS)			12400	12400		ng/L		100	51 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			12000	13300		ng/L		111	59 - 130	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			12200	12200		ng/L		100	56 - 130	9	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			12300	11200		ng/L		91	55 - 130	14	30
Perfluorooctanesulfonamide (PFOSA)			12800	13500		ng/L		106	64 - 133	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			12800	11600		ng/L		91	59 - 148	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			12800	10900		ng/L		85	60 - 140	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			12800	11600		ng/L		91	58 - 130	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			12800	12600		ng/L		98	57 - 130	9	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			12800	12000		ng/L		94	60 - 130	2	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			12800	11800		ng/L		92	61 - 130	8	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			12800	12200		ng/L		96	47 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			12100	11500		ng/L		95	57 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			12800	11800		ng/L		92	56 - 137	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			12800	12200		ng/L		95	49 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	11600		ng/L		91	50 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	11700		ng/L		98	58 - 130	1	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-669876/4-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669876

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	11900		ng/L		98	55 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	10900		ng/L		96	50 - 130	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	9490		ng/L		74	34 - 148	2	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	10200		ng/L		80	45 - 139	8	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	19900	*+	ng/L		156	38 - 135	6	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*104*		*10 - 168*
13C5 PFPeA	*104*		*15 - 189*
13C5 PFHxA	*102*		*20 - 165*
13C4 PFHpA	*104*		*33 - 166*
13C8 PFOA	*93*		*40 - 154*
13C9 PFNA	*106*		*39 - 162*
13C6 PFDA	*106*		*41 - 153*
13C7 PFUnA	*102*		*35 - 161*
13C2-PFDoDA	*90*		*22 - 165*
13C2 PFTeDA	*99*		*17 - 156*
13C3 PFBS	*103*		*27 - 200*
13C3 PFHxS	*104*		*39 - 164*
13C8 PFOS	*103*		*44 - 153*
13C8 FOSA	*72*		*11 - 149*
d5-NEtFOSAA	*102*		*30 - 180*
M2-6:2 FTS	*89*		*26 - 200*
M2-8:2 FTS	*103*		*27 - 200*
13C3 HFPO-DA	*95*		*11 - 166*
d7-N-MeFOSE-M	*69*		*10 - 154*
d9-N-EtFOSE-M	*72*		*10 - 146*
d5-NEtPFOSA	*73*		*10 - 130*
d3-NMePFOSA	*68*		*10 - 130*
13C-6:2 FTCA	*56*		*15 - 182*

LCMS

Prep Batch: 664522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1	DC340005-SS	Total/NA	Water	EPA 537 (Mod)	
410-227544-2	DC340005-WW-PRE	Total/NA	Water	EPA 537 (Mod)	
410-227544-3	DC340005-WW-POST	Total/NA	Water	EPA 537 (Mod)	
410-227544-4	DC340005-MIST-PRE	Total/NA	Water	EPA 537 (Mod)	
410-227544-5	DC340005-MIST-POST	Total/NA	Water	EPA 537 (Mod)	
410-227544-6	DC340005-SPOT	Total/NA	Water	EPA 537 (Mod)	
410-227544-7	DC340005-SPOT-2	Total/NA	Water	EPA 537 (Mod)	
410-227544-8	DC340005-DET	Total/NA	Water	EPA 537 (Mod)	
410-227544-9	DC340005-DET-2	Total/NA	Water	EPA 537 (Mod)	
410-227544-10	DC340005-DET-3	Total/NA	Water	EPA 537 (Mod)	
410-227544-11	DC340005-WW-BASIN	Total/NA	Water	EPA 537 (Mod)	
410-227544-15	DC340005-DUP-2	Total/NA	Water	EPA 537 (Mod)	
MB 410-664522/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-664522/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-664522/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Prep Batch: 665342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1	DC340005-SS	Post-Treatment	Water	TOP Post Prep	
410-227544-1 - DL	DC340005-SS	Post-Treatment	Water	TOP Post Prep	
410-227544-2	DC340005-WW-PRE	Post-Treatment	Water	TOP Post Prep	
410-227544-3	DC340005-WW-POST	Post-Treatment	Water	TOP Post Prep	
410-227544-4	DC340005-MIST-PRE	Post-Treatment	Water	TOP Post Prep	
410-227544-5	DC340005-MIST-POST	Post-Treatment	Water	TOP Post Prep	
410-227544-6	DC340005-SPOT	Post-Treatment	Water	TOP Post Prep	
410-227544-7	DC340005-SPOT-2	Post-Treatment	Water	TOP Post Prep	
410-227544-7 - RA	DC340005-SPOT-2	Post-Treatment	Water	TOP Post Prep	
410-227544-8	DC340005-DET	Post-Treatment	Water	TOP Post Prep	
410-227544-8 - RA	DC340005-DET	Post-Treatment	Water	TOP Post Prep	
410-227544-9	DC340005-DET-2	Post-Treatment	Water	TOP Post Prep	
410-227544-10	DC340005-DET-3	Post-Treatment	Water	TOP Post Prep	
MB 410-665342/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-665342/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-665342/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-665342/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Cleanup Batch: 666871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1	DC340005-SS	Total/NA	Water	Extract Aliquot	664522
410-227544-2	DC340005-WW-PRE	Total/NA	Water	Extract Aliquot	664522
410-227544-3	DC340005-WW-POST	Total/NA	Water	Extract Aliquot	664522
410-227544-4	DC340005-MIST-PRE	Total/NA	Water	Extract Aliquot	664522
410-227544-5	DC340005-MIST-POST	Total/NA	Water	Extract Aliquot	664522
410-227544-6	DC340005-SPOT	Total/NA	Water	Extract Aliquot	664522
410-227544-7	DC340005-SPOT-2	Total/NA	Water	Extract Aliquot	664522
410-227544-8	DC340005-DET	Total/NA	Water	Extract Aliquot	664522
410-227544-9	DC340005-DET-2	Total/NA	Water	Extract Aliquot	664522
410-227544-10	DC340005-DET-3	Total/NA	Water	Extract Aliquot	664522
410-227544-11	DC340005-WW-BASIN	Total/NA	Water	Extract Aliquot	664522
410-227544-15	DC340005-DUP-2	Total/NA	Water	Extract Aliquot	664522
MB 410-664522/1-B	Method Blank	Total/NA	Water	Extract Aliquot	664522

LCMS (Continued)

Cleanup Batch: 666871 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-664522/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	664522
LCSD 410-664522/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	664522

Analysis Batch: 667309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-2	DC340005-WW-PRE	Post-Treatment	Water	537 TOP	668622
410-227544-3	DC340005-WW-POST	Post-Treatment	Water	537 TOP	668622
410-227544-4	DC340005-MIST-PRE	Post-Treatment	Water	537 TOP	668622
410-227544-5	DC340005-MIST-POST	Post-Treatment	Water	537 TOP	668622
410-227544-6	DC340005-SPOT	Post-Treatment	Water	537 TOP	668622
410-227544-7	DC340005-SPOT-2	Post-Treatment	Water	537 TOP	668622
410-227544-8	DC340005-DET	Post-Treatment	Water	537 TOP	668622
410-227544-9	DC340005-DET-2	Post-Treatment	Water	537 TOP	668622
410-227544-10	DC340005-DET-3	Post-Treatment	Water	537 TOP	668622
MB 410-665342/1-B	Method Blank	Total/NA	Water	537 TOP	668622
MB 410-665342/2-B	Method Blank	Total/NA	Water	537 TOP	668622
LCS 410-665342/3-B	Lab Control Sample	Total/NA	Water	537 TOP	668622
LCSD 410-665342/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	668622

Analysis Batch: 668235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-2	DC340005-WW-PRE	Total/NA	Water	537 IDA	666871
410-227544-3	DC340005-WW-POST	Total/NA	Water	537 IDA	666871
410-227544-4	DC340005-MIST-PRE	Total/NA	Water	537 IDA	666871
410-227544-5	DC340005-MIST-POST	Total/NA	Water	537 IDA	666871
410-227544-6	DC340005-SPOT	Total/NA	Water	537 IDA	666871
410-227544-7	DC340005-SPOT-2	Total/NA	Water	537 IDA	666871
410-227544-8	DC340005-DET	Total/NA	Water	537 IDA	666871
410-227544-9	DC340005-DET-2	Total/NA	Water	537 IDA	666871
410-227544-10	DC340005-DET-3	Total/NA	Water	537 IDA	666871
410-227544-11	DC340005-WW-BASIN	Total/NA	Water	537 IDA	666871
410-227544-15	DC340005-DUP-2	Total/NA	Water	537 IDA	666871
MB 410-664522/1-B	Method Blank	Total/NA	Water	537 IDA	666871
LCS 410-664522/2-B	Lab Control Sample	Total/NA	Water	537 IDA	666871
LCSD 410-664522/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	666871

Cleanup Batch: 668622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1	DC340005-SS	Post-Treatment	Water	Extract Aliquot	665342
410-227544-1 - DL	DC340005-SS	Post-Treatment	Water	Extract Aliquot	665342
410-227544-2	DC340005-WW-PRE	Post-Treatment	Water	Extract Aliquot	665342
410-227544-3	DC340005-WW-POST	Post-Treatment	Water	Extract Aliquot	665342
410-227544-4	DC340005-MIST-PRE	Post-Treatment	Water	Extract Aliquot	665342
410-227544-5	DC340005-MIST-POST	Post-Treatment	Water	Extract Aliquot	665342
410-227544-6	DC340005-SPOT	Post-Treatment	Water	Extract Aliquot	665342
410-227544-7 - RA	DC340005-SPOT-2	Post-Treatment	Water	Extract Aliquot	665342
410-227544-7	DC340005-SPOT-2	Post-Treatment	Water	Extract Aliquot	665342
410-227544-8 - RA	DC340005-DET	Post-Treatment	Water	Extract Aliquot	665342
410-227544-8	DC340005-DET	Post-Treatment	Water	Extract Aliquot	665342
410-227544-9	DC340005-DET-2	Post-Treatment	Water	Extract Aliquot	665342
410-227544-10	DC340005-DET-3	Post-Treatment	Water	Extract Aliquot	665342

LCMS (Continued)

Cleanup Batch: 668622 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-665342/1-B	Method Blank	Total/NA	Water	Extract Aliquot	665342
MB 410-665342/2-B	Method Blank	Total/NA	Water	Extract Aliquot	665342
LCS 410-665342/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	665342
LCSD 410-665342/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	665342

Analysis Batch: 668965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1	DC340005-SS	Post-Treatment	Water	537 TOP	668622
410-227544-1 - DL	DC340005-SS	Post-Treatment	Water	537 TOP	668622
410-227544-7 - RA	DC340005-SPOT-2	Post-Treatment	Water	537 TOP	668622
410-227544-8 - RA	DC340005-DET	Post-Treatment	Water	537 TOP	668622
MB 410-665342/1-B	Method Blank	Total/NA	Water	537 TOP	668622
MB 410-665342/1-B	Method Blank	Total/NA	Water	537 TOP	668622
LCS 410-665342/3-B	Lab Control Sample	Total/NA	Water	537 TOP	668622
LCSD 410-665342/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	668622

Prep Batch: 669876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-11	DC340005-WW-BASIN	Post-Treatment	Water	TOP Post Prep	
MB 410-669876/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-669876/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-669876/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-669876/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Prep Batch: 670119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1 - RE	DC340005-SS	Total/NA	Water	EPA 537 (Mod)	
410-227544-7 - RE	DC340005-SPOT-2	Total/NA	Water	EPA 537 (Mod)	
410-227544-8 - RE	DC340005-DET	Total/NA	Water	EPA 537 (Mod)	
MB 410-670119/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-670119/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-670119/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 670855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-11	DC340005-WW-BASIN	Post-Treatment	Water	Extract Aliquot	669876
MB 410-669876/1-B	Method Blank	Total/NA	Water	Extract Aliquot	669876
MB 410-669876/2-B	Method Blank	Total/NA	Water	Extract Aliquot	669876
LCS 410-669876/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	669876
LCSD 410-669876/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	669876

Prep Batch: 671228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1 - RE	DC340005-SS	Post-Treatment	Water	TOP Post Prep	
410-227544-2 - RE	DC340005-WW-PRE	Post-Treatment	Water	TOP Post Prep	
410-227544-3 - RE	DC340005-WW-POST	Post-Treatment	Water	TOP Post Prep	
410-227544-4 - RE	DC340005-MIST-PRE	Post-Treatment	Water	TOP Post Prep	
410-227544-5 - RE	DC340005-MIST-POST	Post-Treatment	Water	TOP Post Prep	
410-227544-6 - RE	DC340005-SPOT	Post-Treatment	Water	TOP Post Prep	
410-227544-7 - RE	DC340005-SPOT-2	Post-Treatment	Water	TOP Post Prep	
410-227544-8 - RE	DC340005-DET	Post-Treatment	Water	TOP Post Prep	

LCMS (Continued)

Prep Batch: 671228 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-9 - RE	DC340005-DET-2	Post-Treatment	Water	TOP Post Prep	
410-227544-10 - RE	DC340005-DET-3	Post-Treatment	Water	TOP Post Prep	
MB 410-671228/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-671228/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-671228/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-671228/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Cleanup Batch: 671725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1 - RE	DC340005-SS	Total/NA	Water	Extract Aliquot	670119
410-227544-7 - RE	DC340005-SPOT-2	Total/NA	Water	Extract Aliquot	670119
410-227544-8 - RE	DC340005-DET	Total/NA	Water	Extract Aliquot	670119
MB 410-670119/1-B	Method Blank	Total/NA	Water	Extract Aliquot	670119
LCS 410-670119/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	670119
LCSD 410-670119/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	670119

Analysis Batch: 672727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-11	DC340005-WW-BASIN	Post-Treatment	Water	537 TOP	670855
MB 410-669876/1-B	Method Blank	Total/NA	Water	537 TOP	670855
MB 410-669876/2-B	Method Blank	Total/NA	Water	537 TOP	670855
LCS 410-669876/3-B	Lab Control Sample	Total/NA	Water	537 TOP	670855
LCSD 410-669876/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	670855

Cleanup Batch: 672755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1 - RE	DC340005-SS	Post-Treatment	Water	Extract Aliquot	671228
410-227544-2 - RE	DC340005-WW-PRE	Post-Treatment	Water	Extract Aliquot	671228
410-227544-3 - RE	DC340005-WW-POST	Post-Treatment	Water	Extract Aliquot	671228
410-227544-4 - RE	DC340005-MIST-PRE	Post-Treatment	Water	Extract Aliquot	671228
410-227544-5 - RE	DC340005-MIST-POST	Post-Treatment	Water	Extract Aliquot	671228
410-227544-6 - RE	DC340005-SPOT	Post-Treatment	Water	Extract Aliquot	671228
410-227544-7 - RE	DC340005-SPOT-2	Post-Treatment	Water	Extract Aliquot	671228
410-227544-8 - RE	DC340005-DET	Post-Treatment	Water	Extract Aliquot	671228
410-227544-9 - RE	DC340005-DET-2	Post-Treatment	Water	Extract Aliquot	671228
410-227544-10 - RE	DC340005-DET-3	Post-Treatment	Water	Extract Aliquot	671228
MB 410-671228/1-B	Method Blank	Total/NA	Water	Extract Aliquot	671228
MB 410-671228/2-B	Method Blank	Total/NA	Water	Extract Aliquot	671228
LCS 410-671228/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	671228
LCSD 410-671228/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	671228

Analysis Batch: 672772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1 - RE	DC340005-SS	Total/NA	Water	537 IDA	671725
410-227544-7 - RE	DC340005-SPOT-2	Total/NA	Water	537 IDA	671725
410-227544-8 - RE	DC340005-DET	Total/NA	Water	537 IDA	671725
MB 410-670119/1-B	Method Blank	Total/NA	Water	537 IDA	671725
LCS 410-670119/2-B	Lab Control Sample	Total/NA	Water	537 IDA	671725
LCSD 410-670119/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	671725

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

LCMS

Analysis Batch: 673349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1	DC340005-SS	Total/NA	Water	537 IDA	666871

Analysis Batch: 673669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227544-1 - RE	DC340005-SS	Post-Treatment	Water	537 TOP	672755
410-227544-2 - RE	DC340005-WW-PRE	Post-Treatment	Water	537 TOP	672755
410-227544-3 - RE	DC340005-WW-POST	Post-Treatment	Water	537 TOP	672755
410-227544-4 - RE	DC340005-MIST-PRE	Post-Treatment	Water	537 TOP	672755
410-227544-5 - RE	DC340005-MIST-POST	Post-Treatment	Water	537 TOP	672755
410-227544-6 - RE	DC340005-SPOT	Post-Treatment	Water	537 TOP	672755
410-227544-7 - RE	DC340005-SPOT-2	Post-Treatment	Water	537 TOP	672755
410-227544-8 - RE	DC340005-DET	Post-Treatment	Water	537 TOP	672755
410-227544-9 - RE	DC340005-DET-2	Post-Treatment	Water	537 TOP	672755
410-227544-10 - RE	DC340005-DET-3	Post-Treatment	Water	537 TOP	672755
MB 410-671228/1-B	Method Blank	Total/NA	Water	537 TOP	672755
MB 410-671228/2-B	Method Blank	Total/NA	Water	537 TOP	672755
LCS 410-671228/3-B	Lab Control Sample	Total/NA	Water	537 TOP	672755
LCSD 410-671228/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	672755

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

Client Sample ID: DC340005-SS
Lab Sample ID: 410-227544-1
Date Collected: 06/12/25 11:30
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)	RE		670119	WHU6	ELLE	07/11/25 13:36
Total/NA	Cleanup	Extract Aliquot	RE		671725	WHU6	ELLE	07/15/25 19:39
Total/NA	Analysis	537 IDA	RE	1	672772	FDE4	ELLE	07/17/25 21:46
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	673349	FDE4	ELLE	07/18/25 16:52
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	668965	FDE4	ELLE	07/10/25 16:27
Post-Treatment	Prep	TOP Post Prep	DL		665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot	DL		668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP	DL	10	668965	FDE4	ELLE	07/10/25 16:41
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 16:08

Client Sample ID: DC340005-WW-PRE
Lab Sample ID: 410-227544-2
Date Collected: 06/12/25 10:53
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 21:36
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	667309	FDE4	ELLE	07/05/25 20:27
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 16:21

Client Sample ID: DC340005-WW-POST
Lab Sample ID: 410-227544-3
Date Collected: 06/12/25 12:25
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 21:50
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	667309	FDE4	ELLE	07/05/25 20:40
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 16:35

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Client Sample ID: DC340005-MIST-PRE

Lab Sample ID: 410-227544-4

Date Collected: 06/12/25 11:10
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 22:04
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	667309	FDE4	ELLE	07/05/25 20:54
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 16:48

Client Sample ID: DC340005-MIST-POST

Lab Sample ID: 410-227544-5

Date Collected: 06/12/25 11:15
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 22:17
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	667309	FDE4	ELLE	07/05/25 21:08
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 17:02

Client Sample ID: DC340005-SPOT

Lab Sample ID: 410-227544-6

Date Collected: 06/12/25 13:25
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 22:31
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	667309	FDE4	ELLE	07/05/25 21:21
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 17:15

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

Client Sample ID: DC340005-SPOT-2
Lab Sample ID: 410-227544-7
Date Collected: 06/12/25 13:30
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 22:44
Total/NA	Prep	EPA 537 (Mod)	RE		670119	WHU6	ELLE	07/11/25 13:36
Total/NA	Cleanup	Extract Aliquot	RE		671725	WHU6	ELLE	07/15/25 19:39
Total/NA	Analysis	537 IDA	RE	1	672772	FDE4	ELLE	07/17/25 22:00
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	667309	FDE4	ELLE	07/05/25 21:35
Post-Treatment	Prep	TOP Post Prep	RA		665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot	RA		668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP	RA	1	668965	FDE4	ELLE	07/10/25 15:19
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 17:29

Client Sample ID: DC340005-DET
Lab Sample ID: 410-227544-8
Date Collected: 06/12/25 13:00
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 22:58
Total/NA	Prep	EPA 537 (Mod)	RE		670119	WHU6	ELLE	07/11/25 13:36
Total/NA	Cleanup	Extract Aliquot	RE		671725	WHU6	ELLE	07/15/25 19:39
Total/NA	Analysis	537 IDA	RE	1	672772	FDE4	ELLE	07/17/25 22:13
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	667309	FDE4	ELLE	07/05/25 21:48
Post-Treatment	Prep	TOP Post Prep	RA		665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot	RA		668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP	RA	1	668965	FDE4	ELLE	07/10/25 15:33
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 17:43

Client Sample ID: DC340005-DET-2
Lab Sample ID: 410-227544-9
Date Collected: 06/12/25 12:50
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 23:11

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

Client Sample ID: DC340005-DET-2
Lab Sample ID: 410-227544-9
Date Collected: 06/12/25 12:50
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	667309	FDE4	ELLE	07/05/25 22:02
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 17:56

Client Sample ID: DC340005-DET-3
Lab Sample ID: 410-227544-10
Date Collected: 06/12/25 13:10
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 23:39
Post-Treatment	Prep	TOP Post Prep			665342	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Cleanup	Extract Aliquot			668622	S7AC	ELLE	07/01/25 07:12
Post-Treatment	Analysis	537 TOP		1	667309	FDE4	ELLE	07/05/25 22:15
Post-Treatment	Prep	TOP Post Prep	RE		671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot	RE		672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP	RE	1	673669	DSU6	ELLE	07/20/25 18:10

Client Sample ID: DC340005-WW-BASIN
Lab Sample ID: 410-227544-11
Date Collected: 06/12/25 12:10
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/08/25 23:52
Post-Treatment	Prep	TOP Post Prep			669876	S7AC	ELLE	07/11/25 07:30
Post-Treatment	Cleanup	Extract Aliquot			670855	S7AC	ELLE	07/14/25 10:59
Post-Treatment	Analysis	537 TOP		1	672727	DSU6	ELLE	07/17/25 14:18

Client Sample ID: DC340005-DUP-2
Lab Sample ID: 410-227544-15
Date Collected: 06/12/25 00:00
Matrix: Water
Date Received: 06/14/25 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/09/25 00:06

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	09-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	EPA 537 (Mod)	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	EPA 537 (Mod)	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	EPA 537 (Mod)	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid (PFBS)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid (PFBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid (PFDS)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid (PFDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid (PFDoA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid (PFHpA)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid (PFHxA)

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid (PFNS)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid (PFNA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide (PFOSA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid (PFOS)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid (PFOA)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid (PFPeA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid (PFTrDA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid (PFUnA)
537 TOP	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)

Client: Hart & Hickman, PC
Job ID: 410-227544-1
Project/Site: $2.75 Cleaners (DC340005)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 TOP	Fluorinated Alkyl Substances	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: $2.75 Cleaners (DC340005)

Job ID: 410-227544-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-227544-1	DC340005-SS	Water	06/12/25 11:30	06/14/25 10:50	North Carolina
410-227544-2	DC340005-WW-PRE	Water	06/12/25 10:53	06/14/25 10:50	North Carolina
410-227544-3	DC340005-WW-POST	Water	06/12/25 12:25	06/14/25 10:50	North Carolina
410-227544-4	DC340005-MIST-PRE	Water	06/12/25 11:10	06/14/25 10:50	North Carolina
410-227544-5	DC340005-MIST-POST	Water	06/12/25 11:15	06/14/25 10:50	North Carolina
410-227544-6	DC340005-SPOT	Water	06/12/25 13:25	06/14/25 10:50	North Carolina
410-227544-7	DC340005-SPOT-2	Water	06/12/25 13:30	06/14/25 10:50	North Carolina
410-227544-8	DC340005-DET	Water	06/12/25 13:00	06/14/25 10:50	North Carolina
410-227544-9	DC340005-DET-2	Water	06/12/25 12:50	06/14/25 10:50	North Carolina
410-227544-10	DC340005-DET-3	Water	06/12/25 13:10	06/14/25 10:50	North Carolina
410-227544-11	DC340005-WW-BASIN	Water	06/12/25 12:10	06/14/25 10:50	North Carolina
410-227544-15	DC340005-DUP-2	Water	06/12/25 00:00	06/14/25 10:50	North Carolina



410-227544 Chain of Custody

Environme

Chain of Custody Record

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	Sampler: Jacob Sand	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159585-44129.1
Sam Martin	Phone: 704 936 6058	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 2
Company: Hart & Hickman, PC	PWSID	Analysis Requested		Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			Preservation Codes: N - None
City: Charlotte	TAT Requested (days): Standard H+H (10-Day)			
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DS0.PFAS			
Email: smartin@harthickman.com	WO #:			Other:
Project Name: S2.75 Cleaners (DC340005)	Project #: 41025876			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - List of 40 based on EPA method	1633_Final, 1633_TOPS (Past)	537 Mod.											Total Number of containers	Special Instructions/Note:
Preservation Code:					X	X	N	N												X	
DC340005-SS	6/12/25	1130	G	Water	N	N		X	X											3	Please report
DC340005-WW-PRE		1053		Water				X	X											3	J flags + report non-
DC340005-WW-POST		1225		Water				X	X											3	detects as < MDLs
DC340005-MIST-PRE		1110		Water				X	X											3	EDD formats:
DC340005-MIST-POST		1115		Water				X	X											3	H+H, NCDEQ, DSCA
DC340005-SPOT		1325		Water				X	X											3	Sample -SPOT, -SS
DC340005-SPOT-2		1330		Water				X	X											3	Contains high
DC340005-DET		1300		Water				X	X											3	levels of TCE/PCE
DC340005-DET-2		1250		Water				X	X											3	Solvent.
DC340005-DET-3		1310		Water				X	X											3	
DC340005-WW-BASIN	↓	1210	↓	Water	↓	↓		X	X											3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 6/12/25/1800	Company: H+H	Received by:	Date/Time: 6.13.25 1122	Company
Relinquished by:	Date/Time: 6.13.25 1630	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 06/14/25 1050	Company

Custody Seals Intact: ☒ Yes Δ No | Custody Seal No.: 2534685 | Cooler Temperature(s) °C and Other Remarks: R: 2.8 C: 2.8

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

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Client Information	Sampler: Jacob Sand	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159585-44129.2
Client Contact: Sam Martin	Phone: 704 936 6058	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 2 of 2
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			Preservation Codes: N - None
City: Charlotte	TAT Requested (days): Standard H+H (10-day)			
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DS0 PFAS			
Email: smartin@harthickman.com	WO #:			
Project Name: $2.75 Cleaners (DC340005)	Project #: 41025876			Other:
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - List of 40 based on EPA method	1633_Final, 1633_TOPS (Post)	537 Mod	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N		X	
DC340005 – MW-1	6/12/25	1415	G	Water	N	N	X	X		3	* Please report J Flags
DC340005 – MW-2		1500		Water			X	X		3	and report to LMDLs.
DC340005 – DUP-1		—		Water			X	X*		2	*EDD formats: H+H,
DC340005 – DUP-2		—		Water					X	2	NCDEQ, DSCA
DC340005 – EB		1525		Water			X			2	
DC340005 – FB		1520		Waste			X			2	
				Waste							
				Waste							
				Waste							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1		6/12/25 / 1800	H+H		6.13.25 1127	
2		6.13.25 1630				
3					6/14/25 1050	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2534685

Cooler Temperature(s) °C and Other Remarks: R: 2.8 C: 2.8

Ver: 10/10/2024

eurofins Environment Testing America	Eurofins Document Reference : S-SA-FRM28783	Revision: 2	Historical Reference: NA
	Effective date : 25 Jun 2024		Effective

Group (complete after entry):

TRIAGE EMPLOYEE INITIALS/DATE: BR 6/14/25

Source:	(FEDEX) / UPS / FIELD SAMPLER / DRIVER / FRONT DESK
Shipping Container Sealed:	(YES) NO
Custody Seal Present * :	(YES) NO
Ice Present:	(YES) NO
Ice Type:	BLUE ICE / DRY ICE / (ICE) / MELTED ICE / NONE
Packing Type:	BUBBLE WRAP / CARDBOARD / OTHER / STYROFOAM / VERMICULITE / (NONE)

Thermometer ID: DT148/DP415 / 240353699 / DT42-03 / DT42-04 / 58630973WS / 58210419WS / 56740180WS / (61420201WS)

Temperature**	Was Container Frozen?:	Container Matrix:
R:2.8 C:2.8	YES (NO)	(WATER) / SOLID / TISSUE

WV requires that all bottle temperatures must be taken

Tracking number: 7799 3195 7776

Discrepancies/Comments

* Custody seal was intact unless otherwise noted in the discrepancy section
** All temperatures are uncorrected in °C. Temperature correction factors are controlled and documented in LIMS

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-227544-1

Login Number: 227544
List Number: 1
Creator: McDonald, Teigan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

A CLEANER WORLD #203

DC320021

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 9/9/2025 11:08:52 AM

JOB DESCRIPTION

DS0, PFAS

JOB NUMBER

410-231749-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
9/9/2025 11:08:52 AM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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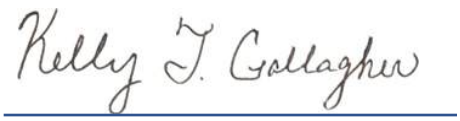


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-231749-1
Project/Site: DS0, PFAS

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-231749-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 7/8/2025 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.7°C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The COC is missing Sample Preservation. This does not meet regulatory requirements.

PFAS
Method 537_IDA_TOPS - Post-Treatment: Perfluorodecanoic acid (PFDA) was detected in the method blank associated with DC320021 - Mist - PRE (410-231749-1), DC320021 - Mist - POST (410-231749-2), DC320021 - WW - PRE (410-231749-3), DC320021 - DET - 1 (410-231749-4), DC320021 - DET - 2 (410-231749-5) and DC320021 - SS (410-231749-6).

Method 537_IDA_TOPS - Post-Treatment: Sample injection standard peak areas in DC320021 - DET - 1 (410-231749-4) and DC320021 - DET - 2 (410-231749-5) are below the QC limits for both the initial injections and the re-injections. The values here are from the initial injections of the samples.

Method 537_IDA_TOPS - Post-Treatment: The recoveries for 13C3 PFBS, M2-6:2 FTS and M2-8:2 FTS in DC320021 - DET - 1 (410-231749-4) and DC320021 - DET - 2 (410-231749-5) are above the QC acceptance limits due to the matrices of the samples.

Method 537_IDA_TOPS - Post-Treatment: The recovery for a labeled precursor in the oxidation blank associated with the initial extraction of DC320021 - SS (410-231749-6) is above the QC acceptance limit.This sample was re-extracted within the required holding time and the recovery for the labeled precursor in the re-extracted oxidation blank is within the QC acceptance limit. The recoveries for M2-6:2 FTS and M2-8:2 FTS in DC320021 - SS (410-231749-6) are above the QC acceptance limits. The values here are from the initial injection of the sample.

Method PFC_IDA: Isotope dilution analyte (IDA) d3-NMePFOSA and d5-NEtPFOSA recoveries were outside QC acceptance criteria in samples DC320021 - Mist - PRE (410-231749-1) and DC320021 - WW - PRE (410-231749-3). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d5-NEtPFOSA recoveries were outside QC acceptance criteria in sample DC320021 - Mist - POST (410-231749-2). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d3-NMePFOSA and d5-NEtPFOSA recoveries in the method blank/laboratory control spike samples associated with the following samples: DC320021 - Mist - PRE (410-231749-1), DC320021 - Mist - POST (410-231749-2), DC320021 - WW - PRE (410-231749-3), DC320021 - DET - 1 (410-231749-4), DC320021 - DET - 2 (410-231749-5) and DC320021 - DUP (410-231749-9) were outside QC acceptance criteria. The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: The sample injection standard peak areas in the following sample: DC320021 - DET - 2 (410-231749-5) are

outside of the QC limits for both the initial injection and the re-extraction. The values here are from the initial injection of the sample.

Method PFC_IDA: The sample injection standard peak areas in the following sample: DC320021 - DET - 1 (410-231749-4) are outside of the QC limits for both the initial injection and the re-extraction. The values here are from the initial injection of the sample.

Method PFC_IDA: The recovery for the labeled isotope(s) 13C2-6:2 FTS, 13C2-PFTeDA, 13C3-PFBS, 13C4-PFBA, 13C4-PFHpA, 13C5-PFPeA, 13C8-PFOA, d7-N-MeFOSE-M, 13C8-PFOSA and 13C-6:2 FTCA in the following sample: DC320021 - DET - 1 (410-231749-4) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits.

Method PFC_IDA: The recovery for the labeled isotope(s) 13C8-PFOS, d7-N-MeFOSE-M and d5-NEtPFOSA in the following sample: DC320021 - DET - 2 (410-231749-5) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) were within QC acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - Mist - PRE — Lab Sample ID: 410-231749-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	750	J	930	420	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	770	J	930	230	ng/L	1		537 IDA	Total/NA
Perfluorobutanoic acid (PFBA)	890	J	1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoropentanoic acid (PFPeA)	190	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorohexanoic acid (PFHxA)	1100		1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	180	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	550	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	130	J	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	490	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	270	J	1000	150	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	770	J	1000	300	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC320021 - Mist - POST — Lab Sample ID: 410-231749-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	590	J I	990	450	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	660	J	990	250	ng/L	1		537 IDA	Total/NA
Perfluorobutanoic acid (PFBA)	1800		1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoropentanoic acid (PFPeA)	270	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorohexanoic acid (PFHxA)	1000		1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	300	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	620	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	460	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	170	J	1000	150	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	410	J	1000	300	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC320021 - WW - PRE — Lab Sample ID: 410-231749-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	260	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	220	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	100	J	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	340	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	930	J	1000	550	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - DET - 1 — Lab Sample ID: 410-231749-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA) - RE	380	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) - RE	430	J cn	1000	300	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC320021 - DET - 2 — Lab Sample ID: 410-231749-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	34000	cn	1500	490	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid (PFDA) - RE	340	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE) - RE	20000	cn	1000	200	ng/L	1		537 TOP	Post-Treatment
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE) - RE	920	J cn	1000	200	ng/L	1		537 TOP	Post-Treatment
3-Perfluoropentylpropanoic acid (5:3 FTCA) - RE	260	J cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC320021 - SS — Lab Sample ID: 410-231749-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	25000		1500	500	ng/L	1		537 IDA	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	350	J	1500	250	ng/L	1		537 IDA	Total/NA
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	82000		1500	500	ng/L	1		537 IDA	Total/NA
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	57000		1500	500	ng/L	1		537 IDA	Total/NA
Perfluorobutanesulfonic acid (PFBS)	440	J	1000	250	ng/L	1		537 IDA	Total/NA
Perfluorobutanoic acid (PFBA)	2000	J	2500	1000	ng/L	1		537 IDA	Total/NA
Perfluorodecanesulfonic acid (PFDS)	450	J	1000	250	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid (PFDA)	2000		1000	250	ng/L	1		537 IDA	Total/NA
Perfluorododecanoic acid (PFDoA)	970	J	1000	250	ng/L	1		537 IDA	Total/NA
Perfluoroheptanoic acid (PFHpA)	550	J	1000	250	ng/L	1		537 IDA	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	980	J	1000	250	ng/L	1		537 IDA	Total/NA
Perfluorohexanoic acid (PFHxA)	4700		1000	450	ng/L	1		537 IDA	Total/NA
Perfluorononanoic acid (PFNA)	470	J	1000	250	ng/L	1		537 IDA	Total/NA
Perfluorooctanesulfonic acid (PFOS)	11000		1000	500	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	4900		1000	250	ng/L	1		537 IDA	Total/NA
Perfluoropentanoic acid (PFPeA)	500	J	1000	250	ng/L	1		537 IDA	Total/NA
Perfluorotetradecanoic acid (PFTeDA)	370	J	1000	250	ng/L	1		537 IDA	Total/NA
Perfluorobutanoic acid (PFBA) - RE	45000		1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoropentanoic acid (PFPeA) - RE	77000		1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorohexanoic acid (PFHxA) - RE	99000		1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA) - RE	3800		1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA) - RE	22000		1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA) - RE	1700		1000	100	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Client Sample ID: DC320021 - SS (Continued)

Lab Sample ID: 410-231749-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA) - RE	10000	B cn	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoroundecanoic acid (PFUnA) - RE	700	J I	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorododecanoic acid (PFDoA) - RE	4000		1000	200	ng/L	1		537 TOP	Post-Treatment
Perfluorotridecanoic acid (PFTrDA) - RE	300	J	1000	200	ng/L	1		537 TOP	Post-Treatment
Perfluorotetradecanoic acid (PFTeDA) - RE	1600		1000	200	ng/L	1		537 TOP	Post-Treatment
Perfluoropentanesulfonic acid (PFPeS) - RE	660	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorohexanesulfonic acid (PFHxS) - RE	4500		1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanesulfonic acid (PFHpS) - RE	310	J	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanesulfonic acid (PFOS) - RE	20000		1000	250	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanesulfonic acid (PFDS) - RE	370	J	1000	150	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS) - RE	1500		1000	550	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) - RE	36000		1000	300	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanesulfonamide (PFOSA) - RE	600	J	1000	150	ng/L	1		537 TOP	Post-Treatment
N-methylperfluorooctane sulfonamide (NMeFOSA) - RE	3000		1000	350	ng/L	1		537 TOP	Post-Treatment
N-ethylperfluorooctane sulfonamide (NEtFOSA) - RE	880	J	1000	200	ng/L	1		537 TOP	Post-Treatment
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) - RE	1100		1000	200	ng/L	1		537 TOP	Post-Treatment
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA) - RE	950	J	1000	250	ng/L	1		537 TOP	Post-Treatment
Perfluorobutanesulfonic acid (PFBS) - REDL	190000		10000	1500	ng/L	10		537 TOP	Post-Treatment
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE) - REDL	470000		10000	2000	ng/L	10		537 TOP	Post-Treatment
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE) - REDL	140000		10000	2000	ng/L	10		537 TOP	Post-Treatment

Client Sample ID: DC320021 - FB

Lab Sample ID: 410-231749-7

No Detections.

Client Sample ID: DC320021 - EB

Lab Sample ID: 410-231749-8

No Detections.

Client Sample ID: DC320021 - DUP

Lab Sample ID: 410-231749-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	730	J	970	440	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	800	J	970	240	ng/L	1		537 IDA	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - Mist - PRE
Date Collected: 07/03/25 11:20
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2300	1900	ng/L		07/14/25 15:42	07/21/25 03:00	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	460	ng/L		07/14/25 15:42	07/21/25 03:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	460	ng/L		07/14/25 15:42	07/21/25 03:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2300	460	ng/L		07/14/25 15:42	07/21/25 03:00	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	460	ng/L		07/14/25 15:42	07/21/25 03:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		930	280	ng/L		07/14/25 15:42	07/21/25 03:00	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	460	ng/L		07/14/25 15:42	07/21/25 03:00	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	460	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorobutanoic acid (PFBA)	ND		2300	930	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorodecanoic acid (PFDA)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorododecanoic acid (PFDoA)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluoroheptanoic acid (PFHpA)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorohexanoic acid (PFHxA)	**750**	**J**	930	420	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorononanesulfonic acid (PFNS)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorononanoic acid (PFNA)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorooctanesulfonamide (PFOSA)	ND		930	320	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		930	460	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorooctanoic acid (PFOA)	**770**	**J**	930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluoropentanesulfonic acid (PFPeS)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluoropentanoic acid (PFPeA)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorotetradecanoic acid (PFTeDA)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluorotridecanoic acid (PFTrDA)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluoroundecanoic acid (PFUnA)	ND		930	230	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		930	93	ng/L		07/14/25 15:42	07/21/25 03:00	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		930	140	ng/L		07/14/25 15:42	07/21/25 03:00	1

Client Sample ID: DC320021 - Mist - PRE
Date Collected: 07/03/25 11:20
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		930	93	ng/L		07/14/25 15:42	07/21/25 03:00	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		930	140	ng/L		07/14/25 15:42	07/21/25 03:00	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		930	93	ng/L		07/14/25 15:42	07/21/25 03:00	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		930	93	ng/L		07/14/25 15:42	07/21/25 03:00	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		930	93	ng/L		07/14/25 15:42	07/21/25 03:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*71*		*19 - 191*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C2-6:2 FTS	*60*		*13 - 200*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C2-8:2 FTS	*67*		*10 - 200*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C2-PFTeDA	*62*		*10 - 186*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C3-HFPO-DA	*61*		*10 - 140*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C3-PFBS	*63*		*24 - 176*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C4-PFBA	*67*		*26 - 162*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C4-PFHpA	*68*		*10 - 193*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C5-PFPeA	*64*		*15 - 162*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C8-PFOA	*60*		*27 - 160*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C8-PFOS	*68*		*22 - 172*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
d3-NMeFOSAA	*77*		*10 - 198*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
d5-NEtFOSAA	*67*		*10 - 200*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
d7-N-MeFOSE-M	*21*		*10 - 181*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
d9-N-EtFOSE-M	*22*		*10 - 182*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C3-PFHxS	*76*		*11 - 180*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C5-PFHxA	*61*		*10 - 176*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C6-PFDA	*69*		*19 - 168*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C7-PFUnA	*60*		*10 - 182*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
d3-NMePFOSA	*9*	**5- cn*	*10 - 137*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
d5-NEtPFOSA	*8*	**5- cn*	*10 - 130*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C8-PFOSA	*45*		*10 - 149*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C2-PFDoA	*58*		*10 - 183*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C9-PFNA	*71*		*10 - 198*	*07/14/25 15:42*	*07/21/25 03:00*	*1*
13C-6:2 FTCA	*72*		*10 - 185*	*07/14/25 15:42*	*07/21/25 03:00*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**890**	**J**	1000	500	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluoropentanoic acid (PFPeA)	**190**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorohexanoic acid (PFHxA)	**1100**		1000	500	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluoroheptanoic acid (PFHpA)	**180**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorooctanoic acid (PFOA)	**550**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorononanoic acid (PFNA)	**130**	**J**	1000	100	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorodecanoic acid (PFDA)	**490**	**J B cn**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:20	1

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - Mist - PRE
Date Collected: 07/03/25 11:20
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-1
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**270**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		08/26/25 10:51	09/05/25 16:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**770**	**J**	1000	300	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/26/25 10:51	09/05/25 16:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/26/25 10:51	09/05/25 16:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:20	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		08/26/25 10:51	09/05/25 16:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*83*		*10 - 168*	*08/26/25 10:51*	*09/05/25 16:20*	*1*

Client Sample ID: DC320021 - Mist - PRE

Lab Sample ID: 410-231749-1

Date Collected: 07/03/25 11:20
Matrix: Water
Date Received: 07/08/25 10:00

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	97		15 - 189	08/26/25 10:51	09/05/25 16:20	1
13C5 PFHxA	77		20 - 165	08/26/25 10:51	09/05/25 16:20	1
13C4 PFHpA	43		33 - 166	08/26/25 10:51	09/05/25 16:20	1
13C8 PFOA	106		40 - 154	08/26/25 10:51	09/05/25 16:20	1
13C9 PFNA	92		39 - 162	08/26/25 10:51	09/05/25 16:20	1
13C6 PFDA	96		41 - 153	08/26/25 10:51	09/05/25 16:20	1
13C7 PFUnA	95		35 - 161	08/26/25 10:51	09/05/25 16:20	1
13C2-PFDoDA	87		22 - 165	08/26/25 10:51	09/05/25 16:20	1
13C2 PFTeDA	86		17 - 156	08/26/25 10:51	09/05/25 16:20	1
13C3 PFBS	112		27 - 200	08/26/25 10:51	09/05/25 16:20	1
13C3 PFHxS	50		39 - 164	08/26/25 10:51	09/05/25 16:20	1
13C8 PFOS	90		44 - 153	08/26/25 10:51	09/05/25 16:20	1
13C8 FOSA	79		11 - 149	08/26/25 10:51	09/05/25 16:20	1
d5-NEtFOSAA	116		30 - 180	08/26/25 10:51	09/05/25 16:20	1
M2-6:2 FTS	179		26 - 200	08/26/25 10:51	09/05/25 16:20	1
M2-8:2 FTS	196		27 - 200	08/26/25 10:51	09/05/25 16:20	1
13C3 HFPO-DA	83		11 - 166	08/26/25 10:51	09/05/25 16:20	1
d7-N-MeFOSE-M	71		10 - 154	08/26/25 10:51	09/05/25 16:20	1
d9-N-EtFOSE-M	74		10 - 146	08/26/25 10:51	09/05/25 16:20	1
d5-NEtPFOSA	63		10 - 130	08/26/25 10:51	09/05/25 16:20	1
d3-NMePFOSA	63		10 - 130	08/26/25 10:51	09/05/25 16:20	1
13C-6:2 FTCA	84		15 - 182	08/26/25 10:51	09/05/25 16:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	93		26 - 150	08/26/25 10:51	09/05/25 16:20	1
13C4 PFOA	86		45 - 147	08/26/25 10:51	09/05/25 16:20	1
13C2 PFUnA	76		11 - 187	08/26/25 10:51	09/05/25 16:20	1

Client Sample ID: DC320021 - Mist - POST

Lab Sample ID: 410-231749-2

Date Collected: 07/03/25 11:30
Matrix: Water
Date Received: 07/08/25 10:00

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		07/14/25 15:42	07/21/25 03:13	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 03:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 03:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/14/25 15:42	07/21/25 03:13	1

Client Sample ID: DC320021 - Mist - POST
Date Collected: 07/03/25 11:30
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-2
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 03:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		990	300	ng/L		07/14/25 15:42	07/21/25 03:13	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 03:13	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorobutanoic acid (PFBA)	ND		2500	990	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorodecanesulfonic acid (PFDS)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorodecanoic acid (PFDA)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorododecanoic acid (PFDoA)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluoroheptanoic acid (PFHpA)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorohexanoic acid (PFHxA)	**590**	**J I**	990	450	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorononanesulfonic acid (PFNS)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorononanoic acid (PFNA)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorooctanesulfonamide (PFOSA)	ND		990	350	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		990	500	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorooctanoic acid (PFOA)	**660**	**J**	990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluoropentanesulfonic acid (PFPeS)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluoropentanoic acid (PFPeA)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorotetradecanoic acid (PFTeDA)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluorotridecanoic acid (PFTrDA)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluoroundecanoic acid (PFUnA)	ND		990	250	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		990	99	ng/L		07/14/25 15:42	07/21/25 03:13	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		990	150	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		990	99	ng/L		07/14/25 15:42	07/21/25 03:13	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		990	150	ng/L		07/14/25 15:42	07/21/25 03:13	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		990	99	ng/L		07/14/25 15:42	07/21/25 03:13	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		990	99	ng/L		07/14/25 15:42	07/21/25 03:13	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		990	99	ng/L		07/14/25 15:42	07/21/25 03:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*64*		*19 - 191*	*07/14/25 15:42*	*07/21/25 03:13*	*1*
13C2-6:2 FTS	*56*		*13 - 200*	*07/14/25 15:42*	*07/21/25 03:13*	*1*
13C2-8:2 FTS	*61*		*10 - 200*	*07/14/25 15:42*	*07/21/25 03:13*	*1*
13C2-PFTeDA	*64*		*10 - 186*	*07/14/25 15:42*	*07/21/25 03:13*	*1*
13C3-HFPO-DA	*60*		*10 - 140*	*07/14/25 15:42*	*07/21/25 03:13*	*1*
13C3-PFBS	*62*		*24 - 176*	*07/14/25 15:42*	*07/21/25 03:13*	*1*
13C4-PFBA	*67*		*26 - 162*	*07/14/25 15:42*	*07/21/25 03:13*	*1*

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - Mist - POST

Date Collected: 07/03/25 11:30
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-2

Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4-PFHpA	65		10 - 193	07/14/25 15:42	07/21/25 03:13	1
13C5-PFPeA	62		15 - 162	07/14/25 15:42	07/21/25 03:13	1
13C8-PFOA	61		27 - 160	07/14/25 15:42	07/21/25 03:13	1
13C8-PFOS	70		22 - 172	07/14/25 15:42	07/21/25 03:13	1
d3-NMeFOSAA	75		10 - 198	07/14/25 15:42	07/21/25 03:13	1
d5-NEtFOSAA	73		10 - 200	07/14/25 15:42	07/21/25 03:13	1
d7-N-MeFOSE-M	21		10 - 181	07/14/25 15:42	07/21/25 03:13	1
d9-N-EtFOSE-M	24		10 - 182	07/14/25 15:42	07/21/25 03:13	1
13C3-PFHxS	74		11 - 180	07/14/25 15:42	07/21/25 03:13	1
13C5-PFHxA	60		10 - 176	07/14/25 15:42	07/21/25 03:13	1
13C6-PFDA	69		19 - 168	07/14/25 15:42	07/21/25 03:13	1
13C7-PFUnA	60		10 - 182	07/14/25 15:42	07/21/25 03:13	1
d3-NMePFOSA	10	cn	10 - 137	07/14/25 15:42	07/21/25 03:13	1
d5-NEtPFOSA	9	*5- cn	10 - 130	07/14/25 15:42	07/21/25 03:13	1
13C8-PFOSA	47		10 - 149	07/14/25 15:42	07/21/25 03:13	1
13C2-PFDoA	62		10 - 183	07/14/25 15:42	07/21/25 03:13	1
13C9-PFNA	71		10 - 198	07/14/25 15:42	07/21/25 03:13	1
13C-6:2 FTCA	71		10 - 185	07/14/25 15:42	07/21/25 03:13	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1800**		1000	500	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluoropentanoic acid (PFPeA)	**270**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorohexanoic acid (PFHxA)	**1000**		1000	500	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluoroheptanoic acid (PFHpA)	**300**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorooctanoic acid (PFOA)	**620**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorodecanoic acid (PFDA)	**460**	**J B cn**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorobutanesulfonic acid (PFBS)	**170**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		08/26/25 10:51	09/05/25 16:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**410**	**J**	1000	300	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1

Client Sample ID: DC320021 - Mist - POST
Date Collected: 07/03/25 11:30
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-2
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/26/25 10:51	09/05/25 16:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:47	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 16:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/26/25 10:51	09/05/25 16:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 16:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 16:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		08/26/25 10:51	09/05/25 16:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*87*		*10 - 168*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C5 PFPeA	*112*		*15 - 189*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C5 PFHxA	*81*		*20 - 165*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C4 PFHpA	*56*		*33 - 166*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C8 PFOA	*110*		*40 - 154*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C9 PFNA	*103*		*39 - 162*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C6 PFDA	*93*		*41 - 153*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C7 PFUnA	*86*		*35 - 161*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C2-PFDoDA	*90*		*22 - 165*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C2 PFTeDA	*85*		*17 - 156*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C3 PFBS	*124*		*27 - 200*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C3 PFHxS	*62*		*39 - 164*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C8 PFOS	*90*		*44 - 153*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C8 FOSA	*76*		*11 - 149*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
d5-NEtFOSAA	*103*		*30 - 180*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
M2-6:2 FTS	*149*		*26 - 200*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
M2-8:2 FTS	*173*		*27 - 200*	*08/26/25 10:51*	*09/05/25 16:47*	*1*
13C3 HFPO-DA	*81*		*11 - 166*	*08/26/25 10:51*	*09/05/25 16:47*	*1*

Client Sample ID: DC320021 - Mist - POST

Lab Sample ID: 410-231749-2

Date Collected: 07/03/25 11:30
Matrix: Water
Date Received: 07/08/25 10:00

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d7-N-MeFOSE-M	68		10 - 154	08/26/25 10:51	09/05/25 16:47	1
d9-N-EtFOSE-M	71		10 - 146	08/26/25 10:51	09/05/25 16:47	1
d5-NEtPFOSA	61		10 - 130	08/26/25 10:51	09/05/25 16:47	1
d3-NMePFOSA	61		10 - 130	08/26/25 10:51	09/05/25 16:47	1
13C-6:2 FTCA	97		15 - 182	08/26/25 10:51	09/05/25 16:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	94		26 - 150	08/26/25 10:51	09/05/25 16:47	1
13C4 PFOA	90		45 - 147	08/26/25 10:51	09/05/25 16:47	1
13C2 PFUnA	80		11 - 187	08/26/25 10:51	09/05/25 16:47	1

Client Sample ID: DC320021 - WW - PRE

Lab Sample ID: 410-231749-3

Date Collected: 07/03/25 11:40
Matrix: Water
Date Received: 07/08/25 10:00

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		07/14/25 15:42	07/21/25 03:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 03:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 03:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	490	ng/L		07/14/25 15:42	07/21/25 03:27	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 03:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		970	290	ng/L		07/14/25 15:42	07/21/25 03:27	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 03:27	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorobutanesulfonic acid (PFBS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorobutanoic acid (PFBA)	ND		2400	970	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorodecanesulfonic acid (PFDS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorodecanoic acid (PFDA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorododecanoic acid (PFDoA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluoroheptanoic acid (PFHpA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorohexanesulfonic acid (PFHxS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1

Client Sample ID: DC320021 - WW - PRE
Date Collected: 07/03/25 11:40
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-3
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND		970	440	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorononanesulfonic acid (PFNS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorononanoic acid (PFNA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorooctanesulfonamide (PFOSA)	ND		970	340	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorooctanesulfonic acid (PFOS)	ND		970	490	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorooctanoic acid (PFOA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluoropentanesulfonic acid (PFPeS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluoropentanoic acid (PFPeA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorotetradecanoic acid (PFTeDA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluorotridecanoic acid (PFTrDA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluoroundecanoic acid (PFUnA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 03:27	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		970	150	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 03:27	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		970	150	ng/L		07/14/25 15:42	07/21/25 03:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 03:27	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 03:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 03:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*73*		*19 - 191*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C2-6:2 FTS	*66*		*13 - 200*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C2-8:2 FTS	*71*		*10 - 200*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C2-PFTeDA	*71*		*10 - 186*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C3-HFPO-DA	*67*		*10 - 140*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C3-PFBS	*74*		*24 - 176*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C4-PFBA	*74*		*26 - 162*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C4-PFHpA	*75*		*10 - 193*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C5-PFPeA	*73*		*15 - 162*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C8-PFOA	*66*		*27 - 160*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C8-PFOS	*75*		*22 - 172*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
d3-NMeFOSAA	*84*		*10 - 198*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
d5-NEtFOSAA	*84*		*10 - 200*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
d7-N-MeFOSE-M	*13*		*10 - 181*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
d9-N-EtFOSE-M	*15*		*10 - 182*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C3-PFHxS	*82*		*11 - 180*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C5-PFHxA	*66*		*10 - 176*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C6-PFDA	*76*		*19 - 168*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C7-PFUnA	*65*		*10 - 182*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
d3-NMePFOSA	*7*	**5- cn*	*10 - 137*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
d5-NEtPFOSA	*6*	**5- cn*	*10 - 130*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C8-PFOSA	*56*		*10 - 149*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C2-PFDoA	*70*		*10 - 183*	*07/14/25 15:42*	*07/21/25 03:27*	*1*
13C9-PFNA	*75*		*10 - 198*	*07/14/25 15:42*	*07/21/25 03:27*	*1*

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - WW - PRE
Date Collected: 07/03/25 11:40
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-3
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-6:2 FTCA	72		10 - 185	07/14/25 15:42	07/21/25 03:27	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluoropentanoic acid (PFPeA)	**260**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluoroheptanoic acid (PFHpA)	**220**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorononanoic acid (PFNA)	**100**	**J**	1000	100	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorodecanoic acid (PFDA)	**340**	**J B cn**	1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 17:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**930**	**J**	1000	550	ng/L		08/26/25 10:51	09/05/25 17:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/26/25 10:51	09/05/25 17:14	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 17:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 17:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 17:14	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 17:14	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 17:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/26/25 10:51	09/05/25 17:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1

Client Sample ID: DC320021 - WW - PRE

Lab Sample ID: 410-231749-3

Date Collected: 07/03/25 11:40
Matrix: Water
Date Received: 07/08/25 10:00

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 17:14	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 17:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 17:14	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 17:14	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 17:14	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		08/26/25 10:51	09/05/25 17:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*87*		*10 - 168*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C5 PFPeA	*124*		*15 - 189*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C5 PFHxA	*74*		*20 - 165*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C4 PFHpA	*54*		*33 - 166*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C8 PFOA	*109*		*40 - 154*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C9 PFNA	*104*		*39 - 162*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C6 PFDA	*92*		*41 - 153*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C7 PFUnA	*90*		*35 - 161*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C2-PFDoDA	*86*		*22 - 165*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C2 PFTeDA	*87*		*17 - 156*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C3 PFBS	*141*		*27 - 200*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C3 PFHxS	*61*		*39 - 164*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C8 PFOS	*92*		*44 - 153*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C8 FOSA	*76*		*11 - 149*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
d5-NEtFOSAA	*118*		*30 - 180*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
M2-6:2 FTS	*168*		*26 - 200*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
M2-8:2 FTS	*177*		*27 - 200*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C3 HFPO-DA	*77*		*11 - 166*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
d7-N-MeFOSE-M	*67*		*10 - 154*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
d9-N-EtFOSE-M	*72*		*10 - 146*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
d5-NEtPFOSA	*64*		*10 - 130*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
d3-NMePFOSA	*65*		*10 - 130*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C-6:2 FTCA	*87*		*15 - 182*	*08/26/25 10:51*	*09/05/25 17:14*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*89*		*26 - 150*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C4 PFOA	*86*		*45 - 147*	*08/26/25 10:51*	*09/05/25 17:14*	*1*
13C2 PFUnA	*83*		*11 - 187*	*08/26/25 10:51*	*09/05/25 17:14*	*1*

Client Sample ID: DC320021 - DET - 1

Lab Sample ID: 410-231749-4

Date Collected: 07/03/25 11:55
Matrix: Water
Date Received: 07/08/25 10:00

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1

Client Sample ID: DC320021 - DET - 1
Date Collected: 07/03/25 11:55
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-4
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	2400	2000	ng/L		07/14/25 15:42	07/21/25 03:40	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1400	480	ng/L		07/14/25 15:42	07/21/25 03:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1400	480	ng/L		07/14/25 15:42	07/21/25 03:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1400	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	2400	480	ng/L		07/14/25 15:42	07/21/25 03:40	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1400	480	ng/L		07/14/25 15:42	07/21/25 03:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	960	290	ng/L		07/14/25 15:42	07/21/25 03:40	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1400	480	ng/L		07/14/25 15:42	07/21/25 03:40	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1400	480	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorobutanoic acid (PFBA)	ND	cn	2400	960	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorodecanoic acid (PFDA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1400	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorododecanoic acid (PFDoA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorohexanoic acid (PFHxA)	ND	cn	960	430	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorononanoic acid (PFNA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	960	340	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	960	480	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorooctanoic acid (PFOA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluoropentanoic acid (PFPeA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	960	240	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	960	96	ng/L		07/14/25 15:42	07/21/25 03:40	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	960	140	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	960	96	ng/L		07/14/25 15:42	07/21/25 03:40	1

Client Sample ID: DC320021 - DET - 1
Date Collected: 07/03/25 11:55
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-4
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	960	140	ng/L		07/14/25 15:42	07/21/25 03:40	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	960	96	ng/L		07/14/25 15:42	07/21/25 03:40	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	960	96	ng/L		07/14/25 15:42	07/21/25 03:40	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	960	96	ng/L		07/14/25 15:42	07/21/25 03:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*2*	**5- cn*	*19 - 191*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C2-6:2 FTS	*9*	**5- cn*	*13 - 200*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C2-8:2 FTS	*111*	*cn*	*10 - 200*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C2-PFTeDA	*9*	**5- cn*	*10 - 186*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C3-HFPO-DA	*3*	**5- cn*	*10 - 140*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C3-PFBS	*1*	**5- cn*	*24 - 176*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C4-PFBA	*0.6*	**5- cn*	*26 - 162*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C4-PFHpA	*3*	**5- cn*	*10 - 193*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C5-PFPeA	*0.4*	**5- cn*	*15 - 162*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C8-PFOA	*6*	**5- cn*	*27 - 160*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C8-PFOS	*56*	*cn*	*22 - 172*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
d3-NMeFOSAA	*22*	*cn*	*10 - 198*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
d5-NEtFOSAA	*21*	*cn*	*10 - 200*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
d7-N-MeFOSE-M	*7*	**5- cn*	*10 - 181*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
d9-N-EtFOSE-M	*21*	*cn*	*10 - 182*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C3-PFHxS	*22*	*cn*	*11 - 180*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C5-PFHxA	*3*	**5- cn*	*10 - 176*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C6-PFDA	*49*	*cn*	*19 - 168*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C7-PFUnA	*22*	*cn*	*10 - 182*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
d3-NMePFOSA	*11*	*cn*	*10 - 137*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
d5-NEtPFOSA	*22*	*cn*	*10 - 130*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C8-PFOSA	*6*	**5- cn*	*10 - 149*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C2-PFDoA	*7*	**5- cn*	*10 - 183*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C9-PFNA	*11*	*cn*	*10 - 198*	*07/14/25 15:42*	*07/21/25 03:40*	*1*
13C-6:2 FTCA	*2*	**5- cn*	*10 - 185*	*07/14/25 15:42*	*07/21/25 03:40*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	100	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorodecanoic acid (PFDA)	**380**	**J B cn**	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1

Client Sample ID: DC320021 - DET - 1
Date Collected: 07/03/25 11:55
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-4
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	100	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 17:41	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		08/26/25 10:51	09/05/25 17:41	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**430**	**J cn**	1000	300	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		08/26/25 10:51	09/05/25 17:41	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 17:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 17:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 17:41	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 17:41	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 17:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		08/26/25 10:51	09/05/25 17:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 17:41	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 17:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 17:41	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 17:41	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 17:41	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/26/25 10:51	09/05/25 17:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*65*	*cn*	*10 - 168*	*08/26/25 10:51*	*09/05/25 17:41*	*1*
13C5 PFPeA	*157*	*cn*	*15 - 189*	*08/26/25 10:51*	*09/05/25 17:41*	*1*
13C5 PFHxA	*76*	*cn*	*20 - 165*	*08/26/25 10:51*	*09/05/25 17:41*	*1*
13C4 PFHpA	*57*	*cn*	*33 - 166*	*08/26/25 10:51*	*09/05/25 17:41*	*1*
13C8 PFOA	*106*	*cn*	*40 - 154*	*08/26/25 10:51*	*09/05/25 17:41*	*1*

Client Sample ID: DC320021 - DET - 1

Lab Sample ID: 410-231749-4

Date Collected: 07/03/25 11:55

Matrix: Water

Date Received: 07/08/25 10:00

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - RE (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C9 PFNA	46	cn	39 - 162	08/26/25 10:51	09/05/25 17:41	1
13C6 PFDA	100	cn	41 - 153	08/26/25 10:51	09/05/25 17:41	1
13C7 PFUnA	49	cn	35 - 161	08/26/25 10:51	09/05/25 17:41	1
13C2-PFDoDA	4	*5- cn	22 - 165	08/26/25 10:51	09/05/25 17:41	1
13C2 PFTeDA	35	cn	17 - 156	08/26/25 10:51	09/05/25 17:41	1
13C3 PFBS	336	*5+ cn	27 - 200	08/26/25 10:51	09/05/25 17:41	1
13C3 PFHxS	105	cn	39 - 164	08/26/25 10:51	09/05/25 17:41	1
13C8 PFOS	93	cn	44 - 153	08/26/25 10:51	09/05/25 17:41	1
13C8 FOSA	27	cn	11 - 149	08/26/25 10:51	09/05/25 17:41	1
d5-NEtFOSAA	27	*5- cn	30 - 180	08/26/25 10:51	09/05/25 17:41	1
M2-6:2 FTS	359	*5+ cn	26 - 200	08/26/25 10:51	09/05/25 17:41	1
M2-8:2 FTS	264	*5+ cn	27 - 200	08/26/25 10:51	09/05/25 17:41	1
13C3 HFPO-DA	73	cn	11 - 166	08/26/25 10:51	09/05/25 17:41	1
d7-N-MeFOSE-M	16	cn	10 - 154	08/26/25 10:51	09/05/25 17:41	1
d9-N-EtFOSE-M	29	cn	10 - 146	08/26/25 10:51	09/05/25 17:41	1
d5-NEtPFOSA	16	cn	10 - 130	08/26/25 10:51	09/05/25 17:41	1
d3-NMePFOSA	16	cn	10 - 130	08/26/25 10:51	09/05/25 17:41	1
13C-6:2 FTCA	87	cn	15 - 182	08/26/25 10:51	09/05/25 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	97	cn	26 - 150	08/26/25 10:51	09/05/25 17:41	1
13C4 PFOA	88	cn	45 - 147	08/26/25 10:51	09/05/25 17:41	1
13C2 PFUnA	20	cn	11 - 187	08/26/25 10:51	09/05/25 17:41	1

Client Sample ID: DC320021 - DET - 2

Lab Sample ID: 410-231749-5

Date Collected: 07/03/25 12:05

Matrix: Water

Date Received: 07/08/25 10:00

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	2500	2100	ng/L		07/14/25 15:42	07/21/25 04:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1500	490	ng/L		07/14/25 15:42	07/21/25 04:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1500	490	ng/L		07/14/25 15:42	07/21/25 04:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1500	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	2500	490	ng/L		07/14/25 15:42	07/21/25 04:07	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1500	490	ng/L		07/14/25 15:42	07/21/25 04:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	980	290	ng/L		07/14/25 15:42	07/21/25 04:07	1

Client Sample ID: DC320021 - DET - 2
Date Collected: 07/03/25 12:05
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-5
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1500	490	ng/L		07/14/25 15:42	07/21/25 04:07	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	**34000**	**cn**	1500	490	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorobutanoic acid (PFBA)	ND	cn	2500	980	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorodecanoic acid (PFDA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1500	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorododecanoic acid (PFDoA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorohexanoic acid (PFHxA)	ND	cn	980	440	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorononanoic acid (PFNA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	980	340	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	980	490	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorooctanoic acid (PFOA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluoropentanoic acid (PFPeA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	980	250	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	980	98	ng/L		07/14/25 15:42	07/21/25 04:07	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	980	150	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	980	98	ng/L		07/14/25 15:42	07/21/25 04:07	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	980	150	ng/L		07/14/25 15:42	07/21/25 04:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	980	98	ng/L		07/14/25 15:42	07/21/25 04:07	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	980	98	ng/L		07/14/25 15:42	07/21/25 04:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	980	98	ng/L		07/14/25 15:42	07/21/25 04:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*75*	*cn*	*19 - 191*	*07/14/25 15:42*	*07/21/25 04:07*	*1*
13C2-6:2 FTS	*88*	*cn*	*13 - 200*	*07/14/25 15:42*	*07/21/25 04:07*	*1*
13C2-8:2 FTS	*52*	*cn*	*10 - 200*	*07/14/25 15:42*	*07/21/25 04:07*	*1*
13C2-PFTeDA	*0.4*	**5- cn*	*10 - 186*	*07/14/25 15:42*	*07/21/25 04:07*	*1*
13C3-HFPO-DA	*67*	*cn*	*10 - 140*	*07/14/25 15:42*	*07/21/25 04:07*	*1*
13C3-PFBS	*60*	*cn*	*24 - 176*	*07/14/25 15:42*	*07/21/25 04:07*	*1*
13C4-PFBA	*64*	*cn*	*26 - 162*	*07/14/25 15:42*	*07/21/25 04:07*	*1*
13C4-PFHpA	*78*	*cn*	*10 - 193*	*07/14/25 15:42*	*07/21/25 04:07*	*1*
13C5-PFPeA	*69*	*cn*	*15 - 162*	*07/14/25 15:42*	*07/21/25 04:07*	*1*
13C8-PFOA	*56*	*cn*	*27 - 160*	*07/14/25 15:42*	*07/21/25 04:07*	*1*

Client Sample ID: DC320021 - DET - 2
Date Collected: 07/03/25 12:05
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-5
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8-PFOS	17	*5- cn	22 - 172	07/14/25 15:42	07/21/25 04:07	1
d3-NMeFOSAA	65	cn	10 - 198	07/14/25 15:42	07/21/25 04:07	1
d5-NEtFOSAA	81	cn	10 - 200	07/14/25 15:42	07/21/25 04:07	1
d7-N-MeFOSE-M	5	*5- cn	10 - 181	07/14/25 15:42	07/21/25 04:07	1
d9-N-EtFOSE-M	25	cn	10 - 182	07/14/25 15:42	07/21/25 04:07	1
13C3-PFHxS	67	cn	11 - 180	07/14/25 15:42	07/21/25 04:07	1
13C5-PFHxA	76	cn	10 - 176	07/14/25 15:42	07/21/25 04:07	1
13C6-PFDA	22	cn	19 - 168	07/14/25 15:42	07/21/25 04:07	1
13C7-PFUnA	15	cn	10 - 182	07/14/25 15:42	07/21/25 04:07	1
d3-NMePFOSA	10	cn	10 - 137	07/14/25 15:42	07/21/25 04:07	1
d5-NEtPFOSA	8	*5- cn	10 - 130	07/14/25 15:42	07/21/25 04:07	1
13C8-PFOSA	22	cn	10 - 149	07/14/25 15:42	07/21/25 04:07	1
13C2-PFDoA	3	*5- cn	10 - 183	07/14/25 15:42	07/21/25 04:07	1
13C9-PFNA	44	cn	10 - 198	07/14/25 15:42	07/21/25 04:07	1
13C-6:2 FTCA	94	cn	10 - 185	07/14/25 15:42	07/21/25 04:07	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	100	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorodecanoic acid (PFDA)	**340**	**J B cn**	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	100	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 18:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		08/26/25 10:51	09/05/25 18:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		08/26/25 10:51	09/05/25 18:08	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 18:08	1

Client Sample ID: DC320021 - DET - 2
Date Collected: 07/03/25 12:05
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-5
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	200	ng/L		08/26/25 10:51	09/05/25 18:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 18:08	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	**20000**	**cn**	1000	200	ng/L		08/26/25 10:51	09/05/25 18:08	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	**920**	**J cn**	1000	200	ng/L		08/26/25 10:51	09/05/25 18:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		08/26/25 10:51	09/05/25 18:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 18:08	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 18:08	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	150	ng/L		08/26/25 10:51	09/05/25 18:08	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		08/26/25 10:51	09/05/25 18:08	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	**260**	**J cn**	1000	250	ng/L		08/26/25 10:51	09/05/25 18:08	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/26/25 10:51	09/05/25 18:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92*	*cn*	*10 - 168*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C5 PFPeA	*181*	*cn*	*15 - 189*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C5 PFHxA	*65*	*cn*	*20 - 165*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C4 PFHpA	*44*	*cn*	*33 - 166*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C8 PFOA	*105*	*cn*	*40 - 154*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C9 PFNA	*63*	*cn*	*39 - 162*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C6 PFDA	*80*	*cn*	*41 - 153*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C7 PFUnA	*58*	*cn*	*35 - 161*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C2-PFDoDA	*15*	**5- cn*	*22 - 165*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C2 PFTeDA	*12*	**5- cn*	*17 - 156*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C3 PFBS	*294*	**5+ cn*	*27 - 200*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C3 PFHxS	*62*	*cn*	*39 - 164*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C8 PFOS	*76*	*cn*	*44 - 153*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C8 FOSA	*63*	*cn*	*11 - 149*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
d5-NEtFOSAA	*82*	*cn*	*30 - 180*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
M2-6:2 FTS	*283*	**5+ cn*	*26 - 200*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
M2-8:2 FTS	*251*	**5+ cn*	*27 - 200*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
13C3 HFPO-DA	*67*	*cn*	*11 - 166*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
d7-N-MeFOSE-M	*9*	**5- cn*	*10 - 154*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
d9-N-EtFOSE-M	*74*	*cn*	*10 - 146*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
d5-NEtPFOSA	*27*	*cn*	*10 - 130*	*08/26/25 10:51*	*09/05/25 18:08*	*1*
d3-NMePFOSA	*19*	*cn*	*10 - 130*	*08/26/25 10:51*	*09/05/25 18:08*	*1*

Client Sample ID: DC320021 - DET - 2

Lab Sample ID: 410-231749-5
Date Collected: 07/03/25 12:05
Matrix: Water
Date Received: 07/08/25 10:00

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - RE (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-6:2 FTCA	70	cn	15 - 182	08/26/25 10:51	09/05/25 18:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	83	cn	26 - 150	08/26/25 10:51	09/05/25 18:08	1
13C4 PFOA	85	cn	45 - 147	08/26/25 10:51	09/05/25 18:08	1
13C2 PFUnA	22	cn	11 - 187	08/26/25 10:51	09/05/25 18:08	1

Client Sample ID: DC320021 - SS

Lab Sample ID: 410-231749-6
Date Collected: 07/03/25 12:15
Matrix: Water
Date Received: 07/08/25 10:00

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		07/23/25 09:06	07/25/25 03:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**25000**		1500	500	ng/L		07/23/25 09:06	07/25/25 03:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 03:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**350**	**J**	1500	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/23/25 09:06	07/25/25 03:49	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	**82000**		1500	500	ng/L		07/23/25 09:06	07/25/25 03:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		07/23/25 09:06	07/25/25 03:49	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 03:49	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	**57000**		1500	500	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorobutanesulfonic acid (PFBS)	**440**	**J**	1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorobutanoic acid (PFBA)	**2000**	**J**	2500	1000	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorodecanesulfonic acid (PFDS)	**450**	**J**	1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorodecanoic acid (PFDA)	**2000**		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorododecanoic acid (PFDoA)	**970**	**J**	1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluoroheptanoic acid (PFHpA)	**550**	**J**	1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorohexanesulfonic acid (PFHxS)	**980**	**J**	1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorohexanoic acid (PFHxA)	**4700**		1000	450	ng/L		07/23/25 09:06	07/25/25 03:49	1

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - SS
Date Collected: 07/03/25 12:15
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-6
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorononanoic acid (PFNA)	**470**	**J**	1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorooctanesulfonic acid (PFOS)	**11000**		1000	500	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorooctanoic acid (PFOA)	**4900**		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluoropentanoic acid (PFPeA)	**500**	**J**	1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorotetradecanoic acid (PFTeDA)	**370**	**J**	1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 03:49	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	150	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 03:49	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	150	ng/L		07/23/25 09:06	07/25/25 03:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 03:49	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 03:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 03:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*110*		*19 - 191*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C2-6:2 FTS	*130*		*13 - 200*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C2-8:2 FTS	*194*		*10 - 200*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C2-PFTeDA	*31*		*10 - 186*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C3-HFPO-DA	*80*		*10 - 140*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C3-PFBS	*81*		*24 - 176*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C4-PFBA	*95*		*26 - 162*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C4-PFHpA	*103*		*10 - 193*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C5-PFPeA	*90*		*15 - 162*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C8-PFOA	*85*		*27 - 160*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C8-PFOS	*78*		*22 - 172*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
d3-NMeFOSAA	*65*		*10 - 198*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
d5-NEtFOSAA	*65*		*10 - 200*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
d7-N-MeFOSE-M	*41*		*10 - 181*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
d9-N-EtFOSE-M	*17*		*10 - 182*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C3-PFHxS	*88*		*11 - 180*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C5-PFHxA	*79*		*10 - 176*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C6-PFDA	*90*		*19 - 168*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C7-PFUnA	*49*		*10 - 182*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
d3-NMePFOSA	*14*		*10 - 137*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
d5-NEtPFOSA	*14*		*10 - 130*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C8-PFOSA	*42*		*10 - 149*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C2-PFDoA	*27*		*10 - 183*	*07/23/25 09:06*	*07/25/25 03:49*	*1*
13C9-PFNA	*101*		*10 - 198*	*07/23/25 09:06*	*07/25/25 03:49*	*1*

Client Sample ID: DC320021 - SS
Date Collected: 07/03/25 12:15
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-6
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-6:2 FTCA	107		10 - 185	07/23/25 09:06	07/25/25 03:49	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**45000**		1000	500	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluoropentanoic acid (PFPeA)	**77000**		1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorohexanoic acid (PFHxA)	**99000**		1000	500	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluoroheptanoic acid (PFHpA)	**3800**		1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorooctanoic acid (PFOA)	**22000**		1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorononanoic acid (PFNA)	**1700**		1000	100	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorodecanoic acid (PFDA)	**10000**	**B cn**	1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluoroundecanoic acid (PFUnA)	**700**	**J l**	1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorododecanoic acid (PFDoA)	**4000**		1000	200	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorotridecanoic acid (PFTrDA)	**300**	**J**	1000	200	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorotetradecanoic acid (PFTeDA)	**1600**		1000	200	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluoropentanesulfonic acid (PFPeS)	**660**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorohexanesulfonic acid (PFHxS)	**4500**		1000	100	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluoroheptanesulfonic acid (PFHpS)	**310**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorooctanesulfonic acid (PFOS)	**20000**		1000	250	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorodecanesulfonic acid (PFDS)	**370**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 18:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**1500**		1000	550	ng/L		08/26/25 10:51	09/05/25 18:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**36000**		1000	300	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluorooctanesulfonamide (PFOSA)	**600**	**J**	1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	**3000**		1000	350	ng/L		08/26/25 10:51	09/05/25 18:35	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	**880**	**J**	1000	200	ng/L		08/26/25 10:51	09/05/25 18:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**1100**		1000	200	ng/L		08/26/25 10:51	09/05/25 18:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**950**	**J**	1000	250	ng/L		08/26/25 10:51	09/05/25 18:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/26/25 10:51	09/05/25 18:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1

Client Sample ID: DC320021 - SS
Date Collected: 07/03/25 12:15
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-6
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 18:35	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 18:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 18:35	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 18:35	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 18:35	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		08/26/25 10:51	09/05/25 18:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*72*		*10 - 168*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C5 PFPeA	*79*		*15 - 189*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C5 PFHxA	*60*		*20 - 165*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C4 PFHpA	*36*		*33 - 166*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C8 PFOA	*76*		*40 - 154*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C9 PFNA	*59*		*39 - 162*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C6 PFDA	*73*		*41 - 153*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C7 PFUnA	*43*		*35 - 161*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C2-PFDoDA	*28*		*22 - 165*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C2 PFTeDA	*23*		*17 - 156*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C3 PFBS	*90*		*27 - 200*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C3 PFHxS	*51*		*39 - 164*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C8 PFOS	*72*		*44 - 153*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C8 FOSA	*47*		*11 - 149*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
d5-NEtFOSAA	*46*		*30 - 180*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
M2-6:2 FTS	*324*	**5+ cn*	*26 - 200*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
M2-8:2 FTS	*261*	**5+ cn*	*27 - 200*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C3 HFPO-DA	*56*		*11 - 166*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
d7-N-MeFOSE-M	*15*		*10 - 154*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
d9-N-EtFOSE-M	*15*		*10 - 146*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
d5-NEtPFOSA	*17*		*10 - 130*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
d3-NMePFOSA	*23*		*10 - 130*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C-6:2 FTCA	*43*		*15 - 182*	*08/26/25 10:51*	*09/05/25 18:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*78*		*26 - 150*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C4 PFOA	*63*		*45 - 147*	*08/26/25 10:51*	*09/05/25 18:35*	*1*
13C2 PFUnA	*28*		*11 - 187*	*08/26/25 10:51*	*09/05/25 18:35*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - REDL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**190000**		10000	1500	ng/L		08/26/25 10:51	09/05/25 19:03	10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	**470000**		10000	2000	ng/L		08/26/25 10:51	09/05/25 19:03	10

Client Sample ID: DC320021 - SS

Lab Sample ID: 410-231749-6

Date Collected: 07/03/25 12:15

Matrix: Water

Date Received: 07/08/25 10:00

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment - REDL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	140000		10000	2000	ng/L		08/26/25 10:51	09/05/25 19:03	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFBS	*89*		*27 - 200*	*08/26/25 10:51*	*09/05/25 19:03*	*10*
d7-N-MeFOSE-M	*43*		*10 - 154*	*08/26/25 10:51*	*09/05/25 19:03*	*10*
d9-N-EtFOSE-M	*57*		*10 - 146*	*08/26/25 10:51*	*09/05/25 19:03*	*10*

Client Sample ID: DC320021 - FB

Lab Sample ID: 410-231749-7

Date Collected: 07/03/25 12:25

Matrix: Water

Date Received: 07/08/25 10:00

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		07/23/25 09:06	07/25/25 04:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 04:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 04:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/23/25 09:06	07/25/25 04:02	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 04:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		990	300	ng/L		07/23/25 09:06	07/25/25 04:02	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 04:02	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorobutanoic acid (PFBA)	ND		2500	990	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorodecanoic acid (PFDA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorododecanoic acid (PFDoA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluoroheptanoic acid (PFHpA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorohexanoic acid (PFHxA)	ND		990	450	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorononanesulfonic acid (PFNS)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorononanoic acid (PFNA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorooctanesulfonamide (PFOSA)	ND		990	350	ng/L		07/23/25 09:06	07/25/25 04:02	1

Client Sample ID: DC320021 - FB
Date Collected: 07/03/25 12:25
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-7
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		990	500	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorooctanoic acid (PFOA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluoropentanesulfonic acid (PFPeS)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluoropentanoic acid (PFPeA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorotetradecanoic acid (PFTeDA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluorotridecanoic acid (PFTrDA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluoroundecanoic acid (PFUnA)	ND		990	250	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		990	99	ng/L		07/23/25 09:06	07/25/25 04:02	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		990	150	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		990	99	ng/L		07/23/25 09:06	07/25/25 04:02	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		990	150	ng/L		07/23/25 09:06	07/25/25 04:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		990	99	ng/L		07/23/25 09:06	07/25/25 04:02	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		990	99	ng/L		07/23/25 09:06	07/25/25 04:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		990	99	ng/L		07/23/25 09:06	07/25/25 04:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*88*		*19 - 191*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C2-6:2 FTS	*87*		*13 - 200*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C2-8:2 FTS	*115*		*10 - 200*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C2-PFTeDA	*92*		*10 - 186*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C3-HFPO-DA	*81*		*10 - 140*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C3-PFBS	*92*		*24 - 176*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C4-PFBA	*93*		*26 - 162*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C4-PFHpA	*93*		*10 - 193*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C5-PFPeA	*89*		*15 - 162*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C8-PFOA	*85*		*27 - 160*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C8-PFOS	*102*		*22 - 172*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
d3-NMeFOSAA	*107*		*10 - 198*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
d5-NEtFOSAA	*115*		*10 - 200*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
d7-N-MeFOSE-M	*80*		*10 - 181*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
d9-N-EtFOSE-M	*92*		*10 - 182*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C3-PFHxS	*103*		*11 - 180*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C5-PFHxA	*86*		*10 - 176*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C6-PFDA	*105*		*19 - 168*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C7-PFUnA	*92*		*10 - 182*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
d3-NMePFOSA	*55*		*10 - 137*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
d5-NEtPFOSA	*60*		*10 - 130*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C8-PFOSA	*69*		*10 - 149*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C2-PFDoA	*99*		*10 - 183*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C9-PFNA	*103*		*10 - 198*	*07/23/25 09:06*	*07/25/25 04:02*	*1*
13C-6:2 FTCA	*82*		*10 - 185*	*07/23/25 09:06*	*07/25/25 04:02*	*1*

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - EB
Date Collected: 07/03/25 12:40
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-8
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		07/23/25 09:06	07/25/25 04:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		07/23/25 09:06	07/25/25 04:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		07/23/25 09:06	07/25/25 04:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	490	ng/L		07/23/25 09:06	07/25/25 04:16	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		07/23/25 09:06	07/25/25 04:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		970	290	ng/L		07/23/25 09:06	07/25/25 04:16	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		07/23/25 09:06	07/25/25 04:16	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorobutanesulfonic acid (PFBS)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorobutanoic acid (PFBA)	ND		2400	970	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorodecanesulfonic acid (PFDS)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorodecanoic acid (PFDA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorododecanoic acid (PFDoA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluoroheptanoic acid (PFHpA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorohexanesulfonic acid (PFHxS)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorohexanoic acid (PFHxA)	ND		970	440	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorononanesulfonic acid (PFNS)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorononanoic acid (PFNA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorooctanesulfonamide (PFOSA)	ND		970	340	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorooctanesulfonic acid (PFOS)	ND		970	490	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorooctanoic acid (PFOA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluoropentanesulfonic acid (PFPeS)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluoropentanoic acid (PFPeA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorotetradecanoic acid (PFTeDA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluorotridecanoic acid (PFTrDA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluoroundecanoic acid (PFUnA)	ND		970	240	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		970	97	ng/L		07/23/25 09:06	07/25/25 04:16	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		970	150	ng/L		07/23/25 09:06	07/25/25 04:16	1

Client Sample ID: DC320021 - EB

Lab Sample ID: 410-231749-8

Date Collected: 07/03/25 12:40

Matrix: Water

Date Received: 07/08/25 10:00

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		970	97	ng/L		07/23/25 09:06	07/25/25 04:16	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		970	150	ng/L		07/23/25 09:06	07/25/25 04:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		970	97	ng/L		07/23/25 09:06	07/25/25 04:16	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		970	97	ng/L		07/23/25 09:06	07/25/25 04:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		970	97	ng/L		07/23/25 09:06	07/25/25 04:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*91*		*19 - 191*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C2-6:2 FTS	*95*		*13 - 200*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C2-8:2 FTS	*101*		*10 - 200*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C2-PFTeDA	*103*		*10 - 186*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C3-HFPO-DA	*87*		*10 - 140*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C3-PFBS	*95*		*24 - 176*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C4-PFBA	*99*		*26 - 162*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C4-PFHpA	*98*		*10 - 193*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C5-PFPeA	*93*		*15 - 162*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C8-PFOA	*89*		*27 - 160*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C8-PFOS	*101*		*22 - 172*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
d3-NMeFOSAA	*98*		*10 - 198*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
d5-NEtFOSAA	*97*		*10 - 200*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
d7-N-MeFOSE-M	*85*		*10 - 181*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
d9-N-EtFOSE-M	*91*		*10 - 182*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C3-PFHxS	*105*		*11 - 180*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C5-PFHxA	*90*		*10 - 176*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C6-PFDA	*102*		*19 - 168*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C7-PFUnA	*93*		*10 - 182*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
d3-NMePFOSA	*66*		*10 - 137*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
d5-NEtPFOSA	*70*		*10 - 130*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C8-PFOSA	*75*		*10 - 149*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C2-PFDoA	*97*		*10 - 183*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C9-PFNA	*103*		*10 - 198*	*07/23/25 09:06*	*07/25/25 04:16*	*1*
13C-6:2 FTCA	*85*		*10 - 185*	*07/23/25 09:06*	*07/25/25 04:16*	*1*

Client Sample ID: DC320021 - DUP

Lab Sample ID: 410-231749-9

Date Collected: 07/03/25 00:00

Matrix: Water

Date Received: 07/08/25 10:00

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		07/14/25 15:42	07/21/25 05:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 05:02	1

Client Sample ID: DC320021 - DUP
Date Collected: 07/03/25 00:00
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-9
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 05:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	490	ng/L		07/14/25 15:42	07/21/25 05:02	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 05:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		970	290	ng/L		07/14/25 15:42	07/21/25 05:02	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 05:02	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorobutanoic acid (PFBA)	ND		2400	970	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorodecanoic acid (PFDA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorododecanoic acid (PFDoA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluoroheptanoic acid (PFHpA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorohexanoic acid (PFHxA)	**730**	**J**	970	440	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorononanesulfonic acid (PFNS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorononanoic acid (PFNA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorooctanesulfonamide (PFOSA)	ND		970	340	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorooctanesulfonic acid (PFOS)	ND		970	490	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorooctanoic acid (PFOA)	**800**	**J**	970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluoropentanesulfonic acid (PFPeS)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluoropentanoic acid (PFPeA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorotetradecanoic acid (PFTeDA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluorotridecanoic acid (PFTrDA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluoroundecanoic acid (PFUnA)	ND		970	240	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 05:02	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		970	150	ng/L		07/14/25 15:42	07/21/25 05:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 05:02	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		970	150	ng/L		07/14/25 15:42	07/21/25 05:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 05:02	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 05:02	1

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - DUP
Date Collected: 07/03/25 00:00
Date Received: 07/08/25 10:00

Lab Sample ID: 410-231749-9
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		970	97	ng/L		07/14/25 15:42	07/21/25 05:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*64*		*19 - 191*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C2-6:2 FTS	*55*		*13 - 200*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C2-8:2 FTS	*67*		*10 - 200*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C2-PFTeDA	*71*		*10 - 186*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C3-HFPO-DA	*65*		*10 - 140*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C3-PFBS	*70*		*24 - 176*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C4-PFBA	*72*		*26 - 162*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C4-PFHpA	*67*		*10 - 193*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C5-PFPeA	*71*		*15 - 162*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C8-PFOA	*61*		*27 - 160*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C8-PFOS	*71*		*22 - 172*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
d3-NMeFOSAA	*81*		*10 - 198*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
d5-NEtFOSAA	*78*		*10 - 200*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
d7-N-MeFOSE-M	*25*		*10 - 181*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
d9-N-EtFOSE-M	*27*		*10 - 182*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C3-PFHxS	*78*		*11 - 180*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C5-PFHxA	*63*		*10 - 176*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C6-PFDA	*75*		*19 - 168*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C7-PFUnA	*66*		*10 - 182*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
d3-NMePFOSA	*11*	*cn*	*10 - 137*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
d5-NEtPFOSA	*10*	*cn*	*10 - 130*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C8-PFOSA	*49*		*10 - 149*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C2-PFDoA	*70*		*10 - 183*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C9-PFNA	*70*		*10 - 198*	*07/14/25 15:42*	*07/21/25 05:02*	*1*
13C-6:2 FTCA	*80*		*10 - 185*	*07/14/25 15:42*	*07/21/25 05:02*	*1*

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID			
MB 410-690687/2-B	Method Blank			

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID	(26-150)	(45-147)	(11-187)
410-231749-1	DC320021 - Mist - PRE	93	86	76
410-231749-2	DC320021 - Mist - POST	94	90	80
410-231749-3	DC320021 - WW - PRE	89	86	83
410-231749-4 - RE	DC320021 - DET - 1	97 cn	88 cn	20 cn
410-231749-5 - RE	DC320021 - DET - 2	83 cn	85 cn	22 cn
410-231749-6 - RE	DC320021 - SS	78	63	28

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFTDA	HFPODA	C3PFBS	PFBA	C4PFHA
Lab Sample ID	Client Sample ID	(19-191)	(13-200)	(10-200)	(10-186)	(10-140)	(24-176)	(26-162)	(10-193)
410-231749-1	DC320021 - Mist - PRE	71	60	67	62	61	63	67	68
410-231749-2	DC320021 - Mist - POST	64	56	61	64	60	62	67	65
410-231749-3	DC320021 - WW - PRE	73	66	71	71	67	74	74	75
410-231749-4	DC320021 - DET - 1	2 *5- cn	9 *5- cn	111 cn	9 *5- cn	3 *5- cn	1 *5- cn	0.6 *5- cn	3 *5- cn
410-231749-5	DC320021 - DET - 2	75 cn	88 cn	52 cn	0.4 *5- cn	67 cn	60 cn	64 cn	78 cn
410-231749-6	DC320021 - SS	110	130	194	31	80	81	95	103
410-231749-7	DC320021 - FB	88	87	115	92	81	92	93	93
410-231749-8	DC320021 - EB	91	95	101	103	87	95	99	98
410-231749-9	DC320021 - DUP	64	55	67	71	65	70	72	67
LCS 410-671021/2-B	Lab Control Sample	67	60	62	63	61	68	69	68
LCS 410-675113/2-B	Lab Control Sample	90	86	101	106	91	91	98	96
LCSD 410-671021/3-B	Lab Control Sample Dup	72	61	73	63	63	64	67	71
LCSD 410-675113/3-B	Lab Control Sample Dup	88	87	91	99	89	90	97	96
MB 410-671021/1-B	Method Blank	64	58	74	65	63	69	69	69
MB 410-675113/1-B	Method Blank	71	67	83	73	70	73	80	76

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFPeA	C8PFOA	C8PFOS	d3NMFOS	d5NEFOS	NMFM	NEFM	C3PFHS
Lab Sample ID	Client Sample ID	(15-162)	(27-160)	(22-172)	(10-198)	(10-200)	(10-181)	(10-182)	(11-180)
410-231749-1	DC320021 - Mist - PRE	64	60	68	77	67	21	22	76
410-231749-2	DC320021 - Mist - POST	62	61	70	75	73	21	24	74
410-231749-3	DC320021 - WW - PRE	73	66	75	84	84	13	15	82
410-231749-4	DC320021 - DET - 1	0.4 *5- cn	6 *5- cn	56 cn	22 cn	21 cn	7 *5- cn	21 cn	22 cn
410-231749-5	DC320021 - DET - 2	69 cn	56 cn	17 *5- cn	65 cn	81 cn	5 *5- cn	25 cn	67 cn
410-231749-6	DC320021 - SS	90	85	78	65	65	41	17	88
410-231749-7	DC320021 - FB	89	85	102	107	115	80	92	103
410-231749-8	DC320021 - EB	93	89	101	98	97	85	91	105
410-231749-9	DC320021 - DUP	71	61	71	81	78	25	27	78
LCS 410-671021/2-B	Lab Control Sample	69	59	70	83	73	16	17	76
LCS 410-675113/2-B	Lab Control Sample	95	91	104	98	95	87	87	106
LCSD 410-671021/3-B	Lab Control Sample Dup	65	63	71	79	73	23	23	80
LCSD 410-675113/3-B	Lab Control Sample Dup	92	86	104	99	99	80	82	103
MB 410-671021/1-B	Method Blank	69	62	69	79	72	22	23	75
MB 410-675113/1-B	Method Blank	77	69	85	86	70	61	63	79

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C5PHA	C6PFDA	13C7PUA	d3NMFSA	d5NPFSA	PFOSA	PFDoDA	C9PFNA
Lab Sample ID	Client Sample ID	(10-176)	(19-168)	(10-182)	(10-137)	(10-130)	(10-149)	(10-183)	(10-198)
410-231749-1	DC320021 - Mist - PRE	61	69	60	9 *5- cn	8 *5- cn	45	58	71
410-231749-2	DC320021 - Mist - POST	60	69	60	10 cn	9 *5- cn	47	62	71
410-231749-3	DC320021 - WW - PRE	66	76	65	7 *5- cn	6 *5- cn	56	70	75
410-231749-4	DC320021 - DET - 1	3 *5- cn	49 cn	22 cn	11 cn	22 cn	6 *5- cn	7 *5- cn	11 cn
410-231749-5	DC320021 - DET - 2	76 cn	22 cn	15 cn	10 cn	8 *5- cn	22 cn	3 *5- cn	44 cn
410-231749-6	DC320021 - SS	79	90	49	14	14	42	27	101
410-231749-7	DC320021 - FB	86	105	92	55	60	69	99	103
410-231749-8	DC320021 - EB	90	102	93	66	70	75	97	103
410-231749-9	DC320021 - DUP	63	75	66	11 cn	10 cn	49	70	70
LCS 410-671021/2-B	Lab Control Sample	63	70	57	7 *5-	6 *5-	49	61	69
LCS 410-675113/2-B	Lab Control Sample	89	107	87	61	62	75	94	107
LCSD 410-671021/3-B	Lab Control Sample Dup	66	71	61	7 *5-	5 *5-	50	60	72
LCSD 410-675113/3-B	Lab Control Sample Dup	91	102	90	58	60	73	94	107

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-231749-1
Project/Site: DS0, PFAS

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C5PHA (10-176)	C6PFDA (19-168)	13C7PUA (10-182)	d3NMFSA (10-137)	d5NPFSA (10-130)	PFOSA (10-149)	PFDoDA (10-183)	C9PFNA (10-198)
MB 410-671021/1-B	Method Blank	62	71	60	7 *5-	6 *5-	51	61	71
MB 410-675113/1-B	Method Blank	69	88	68	44	46	64	74	89

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	MFHEA (10-185)
410-231749-1	DC320021 - Mist - PRE	72
410-231749-2	DC320021 - Mist - POST	71
410-231749-3	DC320021 - WW - PRE	72
410-231749-4	DC320021 - DET - 1	2 *5- cn
410-231749-5	DC320021 - DET - 2	94 cn
410-231749-6	DC320021 - SS	107
410-231749-7	DC320021 - FB	82
410-231749-8	DC320021 - EB	85
410-231749-9	DC320021 - DUP	80
LCS 410-671021/2-B	Lab Control Sample	67
LCS 410-675113/2-B	Lab Control Sample	84
LCSD 410-671021/3-B	Lab Control Sample Dup	75
LCSD 410-675113/3-B	Lab Control Sample Dup	85
MB 410-671021/1-B	Method Blank	72
MB 410-675113/1-B	Method Blank	68

Surrogate Legend

M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
PFTDA = 13C2-PFTeDA
HFPODA = 13C3-HFPO-DA
C3PFBS = 13C3-PFBS
PFBA = 13C4-PFBA
C4PFHA = 13C4-PFHpA
PFPeA = 13C5-PFPeA
C8PFOA = 13C8-PFOA
C8PFOS = 13C8-PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
C3PFHS = 13C3-PFHxS
13C5PHA = 13C5-PFHxA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
PFOSA = 13C8-PFOSA
PFDoDA = 13C2-PFDoA
C9PFNA = 13C9-PFNA
MFHEA = 13C-6:2 FTCA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-231749-1
Project/Site: DS0, PFAS

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-168)	(15-189)	(20-165)	(33-166)	(40-154)	(39-162)	(41-153)	(35-161)
LCS 410-690687/3-B	Lab Control Sample	92	93	85	90	110	91	98	88
LCSD 410-690687/4-B	Lab Control Sample Dup	85	89	88	90	107	88	89	86
MB 410-690687/2-B	Method Blank	82	87	80	80	103	83	86	81

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(22-165)	(17-156)	(27-200)	(39-164)	(44-153)	(11-149)	(30-180)	(26-200)
LCS 410-690687/3-B	Lab Control Sample	84	85	92	85	92	74	101	102
LCSD 410-690687/4-B	Lab Control Sample Dup	83	85	92	87	92	74	93	88
MB 410-690687/2-B	Method Blank	89	82	89	76	83	74	87	95

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA
Lab Sample ID	Client Sample ID	(27-200)	(11-166)	(10-154)	(10-146)	(10-130)	(10-130)	(15-182)
LCS 410-690687/3-B	Lab Control Sample	111	87	73	79	74	71	100
LCSD 410-690687/4-B	Lab Control Sample Dup	102	90	74	73	69	69	98
MB 410-690687/2-B	Method Blank	97	81	75	70	70	67	93

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-168)	(15-189)	(20-165)	(33-166)	(40-154)	(39-162)	(41-153)	(35-161)
410-231749-1	DC320021 - Mist - PRE	83	97	77	43	106	92	96	95
410-231749-2	DC320021 - Mist - POST	87	112	81	56	110	103	93	86
410-231749-3	DC320021 - WW - PRE	87	124	74	54	109	104	92	90

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-231749-1
Project/Site: DS0, PFAS

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-168)	(15-189)	(20-165)	(33-166)	(40-154)	(39-162)	(41-153)	(35-161)
410-231749-4 - RE	DC320021 - DET - 1	65 cn	157 cn	76 cn	57 cn	106 cn	46 cn	100 cn	49 cn
410-231749-5 - RE	DC320021 - DET - 2	92 cn	181 cn	65 cn	44 cn	105 cn	63 cn	80 cn	58 cn
410-231749-6 - RE	DC320021 - SS	72	79	60	36	76	59	73	43
410-231749-6 - REDL	DC320021 - SS								

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(22-165)	(17-156)	(27-200)	(39-164)	(44-153)	(11-149)	(30-180)	(26-200)
410-231749-1	DC320021 - Mist - PRE	87	86	112	50	90	79	116	179
410-231749-2	DC320021 - Mist - POST	90	85	124	62	90	76	103	149
410-231749-3	DC320021 - WW - PRE	86	87	141	61	92	76	118	168
410-231749-4 - RE	DC320021 - DET - 1	4 *5- cn	35 cn	336 *5+ cn	105 cn	93 cn	27 cn	27 *5- cn	359 *5+ cn
410-231749-5 - RE	DC320021 - DET - 2	15 *5- cn	12 *5- cn	294 *5+ cn	62 cn	76 cn	63 cn	82 cn	283 *5+ cn
410-231749-6 - RE	DC320021 - SS	28	23	90	51	72	47	46	324 *5+ cn
410-231749-6 - REDL	DC320021 - SS			89					

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA
Lab Sample ID	Client Sample ID	(27-200)	(11-166)	(10-154)	(10-146)	(10-130)	(10-130)	(15-182)
410-231749-1	DC320021 - Mist - PRE	196	83	71	74	63	63	84
410-231749-2	DC320021 - Mist - POST	173	81	68	71	61	61	97
410-231749-3	DC320021 - WW - PRE	177	77	67	72	64	65	87
410-231749-4 - RE	DC320021 - DET - 1	264 *5+ cn	73 cn	16 cn	29 cn	16 cn	16 cn	87 cn
410-231749-5 - RE	DC320021 - DET - 2	251 *5+ cn	67 cn	9 *5- cn	74 cn	27 cn	19 cn	70 cn
410-231749-6 - RE	DC320021 - SS	261 *5+ cn	56	15	15	17	23	43
410-231749-6 - REDL	DC320021 - SS			43	57			

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-671021/1-B
Matrix: Water
Analysis Batch: 673666

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 671021

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		07/14/25 15:42	07/21/25 01:51	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 01:51	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 01:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/14/25 15:42	07/21/25 01:51	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 01:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		07/14/25 15:42	07/21/25 01:51	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 01:51	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	100	ng/L		07/14/25 15:42	07/21/25 01:51	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	150	ng/L		07/14/25 15:42	07/21/25 01:51	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-671021/1-B
Matrix: Water
Analysis Batch: 673666

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 671021

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	100	ng/L		07/14/25 15:42	07/21/25 01:51	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	150	ng/L		07/14/25 15:42	07/21/25 01:51	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	100	ng/L		07/14/25 15:42	07/21/25 01:51	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	100	ng/L		07/14/25 15:42	07/21/25 01:51	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	100	ng/L		07/14/25 15:42	07/21/25 01:51	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*64*		*19 - 191*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C2-6:2 FTS	*58*		*13 - 200*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C2-8:2 FTS	*74*		*10 - 200*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C2-PFTeDA	*65*		*10 - 186*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C3-HFPO-DA	*63*		*10 - 140*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C3-PFBS	*69*		*24 - 176*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C4-PFBA	*69*		*26 - 162*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C4-PFHpA	*69*		*10 - 193*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C5-PFPeA	*69*		*15 - 162*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C8-PFOA	*62*		*27 - 160*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C8-PFOS	*69*		*22 - 172*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
d3-NMeFOSAA	*79*		*10 - 198*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
d5-NEtFOSAA	*72*		*10 - 200*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
d7-N-MeFOSE-M	*22*		*10 - 181*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
d9-N-EtFOSE-M	*23*		*10 - 182*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C3-PFHxS	*75*		*11 - 180*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C5-PFHxA	*62*		*10 - 176*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C6-PFDA	*71*		*19 - 168*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C7-PFUnA	*60*		*10 - 182*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
d3-NMePFOSA	*7*	**5-*	*10 - 137*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
d5-NEtPFOSA	*6*	**5-*	*10 - 130*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C8-PFOSA	*51*		*10 - 149*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C2-PFDoA	*61*		*10 - 183*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C9-PFNA	*71*		*10 - 198*	*07/14/25 15:42*	*07/21/25 01:51*	*1*
13C-6:2 FTCA	*72*		*10 - 185*	*07/14/25 15:42*	*07/21/25 01:51*	*1*

Lab Sample ID: LCS 410-671021/2-B
Matrix: Water
Analysis Batch: 673666

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671021

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	5080		ng/L		84	61 - 131
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5160		ng/L		86	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	5970		ng/L		98	58 - 136

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-671021/2-B
Matrix: Water
Analysis Batch: 673666

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671021

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	5170		ng/L		84	57 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	5180		ng/L		87	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	5360		ng/L		89	55 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	5440		ng/L		85	50 - 137
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	6030		ng/L		94	53 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	6140		ng/L		96	59 - 137
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	5650		ng/L		88	59 - 135
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	4630		ng/L		72	54 - 131
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	6150		ng/L		96	61 - 134
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	5600		ng/L		87	58 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	5100		ng/L		90	56 - 130
Perfluorobutanoic acid (PFBA)	6400	5930		ng/L		93	54 - 144
Perfluorodecanesulfonic acid (PFDS)	6170	5020		ng/L		81	63 - 130
Perfluorodecanoic acid (PFDA)	6400	5290		ng/L		83	61 - 135
Perfluorododecanesulfonic acid (PFDoS)	6210	5130		ng/L		83	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	6170		ng/L		96	60 - 133
Perfluoroheptanesulfonic acid (PFHpS)	6090	4680		ng/L		77	51 - 132
Perfluoroheptanoic acid (PFHpA)	6400	6090		ng/L		95	54 - 133
Perfluorohexanesulfonic acid (PFHxS)	5840	4490		ng/L		77	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	5820		ng/L		91	55 - 132
Perfluorononanesulfonic acid (PFNS)	6160	5110		ng/L		83	65 - 136
Perfluorononanoic acid (PFNA)	6400	5530		ng/L		86	50 - 140
Perfluorooctanesulfonamide (PFOSA)	6400	6130		ng/L		96	62 - 136
Perfluorooctanesulfonic acid (PFOS)	5950	4950		ng/L		83	37 - 149
Perfluorooctanoic acid (PFOA)	6400	6320		ng/L		99	60 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	5350		ng/L		89	59 - 130
Perfluoropentanoic acid (PFPeA)	6400	5660		ng/L		88	59 - 133
Perfluorotetradecanoic acid (PFTeDA)	6400	5840		ng/L		91	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	6220		ng/L		97	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	6380		ng/L		100	58 - 133

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-671021/2-B
Matrix: Water
Analysis Batch: 673666

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 671021

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	5150		ng/L		90	34 - 134		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5590		ng/L		87	10 - 155		
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5710		ng/L		89	53 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	6050		ng/L		95	10 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	5490		ng/L		86	46 - 133		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	5610		ng/L		88	14 - 142		
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	5610		ng/L		88	52 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2-4:2 FTS	*67*		*19 - 191*
13C2-6:2 FTS	*60*		*13 - 200*
13C2-8:2 FTS	*62*		*10 - 200*
13C2-PFTeDA	*63*		*10 - 186*
13C3-HFPO-DA	*61*		*10 - 140*
13C3-PFBS	*68*		*24 - 176*
13C4-PFBA	*69*		*26 - 162*
13C4-PFHpA	*68*		*10 - 193*
13C5-PFPeA	*69*		*15 - 162*
13C8-PFOA	*59*		*27 - 160*
13C8-PFOS	*70*		*22 - 172*
d3-NMeFOSAA	*83*		*10 - 198*
d5-NEtFOSAA	*73*		*10 - 200*
d7-N-MeFOSE-M	*16*		*10 - 181*
d9-N-EtFOSE-M	*17*		*10 - 182*
13C3-PFHxS	*76*		*11 - 180*
13C5-PFHxA	*63*		*10 - 176*
13C6-PFDA	*70*		*19 - 168*
13C7-PFUnA	*57*		*10 - 182*
d3-NMePFOSA	*7*	*5-	*10 - 137*
d5-NEtPFOSA	*6*	*5-	*10 - 130*
13C8-PFOSA	*49*		*10 - 149*
13C2-PFDoA	*61*		*10 - 183*
13C9-PFNA	*69*		*10 - 198*
13C-6:2 FTCA	*67*		*10 - 185*

Lab Sample ID: LCSD 410-671021/3-B
Matrix: Water
Analysis Batch: 673666

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 671021

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	5360		ng/L		89	61 - 131	5	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-671021/3-B
Matrix: Water
Analysis Batch: 673666

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 671021

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			6000	5160		ng/L		86	57 - 130	0	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			6090	6330		ng/L		104	58 - 136	6	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			6140	5000		ng/L		81	57 - 134	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	5250		ng/L		88	59 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)			6050	5080		ng/L		84	55 - 130	5	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			6400	5300		ng/L		83	50 - 137	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			6400	6060		ng/L		95	53 - 130	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			6400	6550		ng/L		102	59 - 137	6	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			6400	6180		ng/L		97	59 - 135	9	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			6400	5120		ng/L		80	54 - 131	10	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			6400	6130		ng/L		96	61 - 134	0	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			6400	5480		ng/L		86	58 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)			5680	5230		ng/L		92	56 - 130	3	30
Perfluorobutanoic acid (PFBA)			6400	5650		ng/L		88	54 - 144	5	30
Perfluorodecanesulfonic acid (PFDS)			6170	5200		ng/L		84	63 - 130	3	30
Perfluorodecanoic acid (PFDA)			6400	5150		ng/L		80	61 - 135	3	30
Perfluorododecanesulfonic acid (PFDoS)			6210	5280		ng/L		85	59 - 130	3	30
Perfluorododecanoic acid (PFDoA)			6400	6140		ng/L		96	60 - 133	0	30
Perfluoroheptanesulfonic acid (PFHpS)			6090	4720		ng/L		77	51 - 132	1	30
Perfluoroheptanoic acid (PFHpA)			6400	6190		ng/L		97	54 - 133	2	30
Perfluorohexanesulfonic acid (PFHxS)			5840	4310		ng/L		74	56 - 130	4	30
Perfluorohexanoic acid (PFHxA)			6400	5530		ng/L		86	55 - 132	5	30
Perfluorononanesulfonic acid (PFNS)			6160	5060		ng/L		82	65 - 136	1	30
Perfluorononanoic acid (PFNA)			6400	5560		ng/L		87	50 - 140	1	30
Perfluorooctanesulfonamide (PFOSA)			6400	6050		ng/L		94	62 - 136	1	30
Perfluorooctanesulfonic acid (PFOS)			5950	5100		ng/L		86	37 - 149	3	30
Perfluorooctanoic acid (PFOA)			6400	6180		ng/L		97	60 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)			6020	5470		ng/L		91	59 - 130	2	30
Perfluoropentanoic acid (PFPeA)			6400	5790		ng/L		91	59 - 133	2	30
Perfluorotetradecanoic acid (PFTeDA)			6400	5980		ng/L		93	62 - 130	2	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-671021/3-B
Matrix: Water
Analysis Batch: 673666

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 671021

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorotridecanoic acid (PFTrDA)			6400	6350		ng/L		99	53 - 133	2	30
Perfluoroundecanoic acid (PFUnA)			6400	6220		ng/L		97	58 - 133	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	5160		ng/L		90	34 - 134	0	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5280		ng/L		83	10 - 155	6	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5640		ng/L		88	53 - 135	1	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	5390		ng/L		84	10 - 150	12	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	5500		ng/L		86	46 - 133	0	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	5280		ng/L		83	14 - 142	6	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	5740		ng/L		90	52 - 130	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2-4:2 FTS	*72*		*19 - 191*
13C2-6:2 FTS	*61*		*13 - 200*
13C2-8:2 FTS	*73*		*10 - 200*
13C2-PFTeDA	*63*		*10 - 186*
13C3-HFPO-DA	*63*		*10 - 140*
13C3-PFBS	*64*		*24 - 176*
13C4-PFBA	*67*		*26 - 162*
13C4-PFHpA	*71*		*10 - 193*
13C5-PFPeA	*65*		*15 - 162*
13C8-PFOA	*63*		*27 - 160*
13C8-PFOS	*71*		*22 - 172*
d3-NMeFOSAA	*79*		*10 - 198*
d5-NEtFOSAA	*73*		*10 - 200*
d7-N-MeFOSE-M	*23*		*10 - 181*
d9-N-EtFOSE-M	*23*		*10 - 182*
13C3-PFHxS	*80*		*11 - 180*
13C5-PFHxA	*66*		*10 - 176*
13C6-PFDA	*71*		*19 - 168*
13C7-PFUnA	*61*		*10 - 182*
d3-NMePFOSA	*7*	*5-	*10 - 137*
d5-NEtPFOSA	*5*	*5-	*10 - 130*
13C8-PFOSA	*50*		*10 - 149*
13C2-PFDoA	*60*		*10 - 183*
13C9-PFNA	*72*		*10 - 198*
13C-6:2 FTCA	*75*		*10 - 185*

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-675113/1-B
Matrix: Water
Analysis Batch: 675778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 675113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		07/23/25 09:06	07/25/25 02:41	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 02:41	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 02:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/23/25 09:06	07/25/25 02:41	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 02:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		07/23/25 09:06	07/25/25 02:41	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 02:41	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 02:41	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	150	ng/L		07/23/25 09:06	07/25/25 02:41	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-675113/1-B
Matrix: Water
Analysis Batch: 675778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 675113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 02:41	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	150	ng/L		07/23/25 09:06	07/25/25 02:41	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 02:41	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 02:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	100	ng/L		07/23/25 09:06	07/25/25 02:41	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*71*		*19 - 191*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C2-6:2 FTS	*67*		*13 - 200*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C2-8:2 FTS	*83*		*10 - 200*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C2-PFTeDA	*73*		*10 - 186*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C3-HFPO-DA	*70*		*10 - 140*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C3-PFBS	*73*		*24 - 176*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C4-PFBA	*80*		*26 - 162*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C4-PFHpA	*76*		*10 - 193*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C5-PFPeA	*77*		*15 - 162*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C8-PFOA	*69*		*27 - 160*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C8-PFOS	*85*		*22 - 172*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
d3-NMeFOSAA	*86*		*10 - 198*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
d5-NEtFOSAA	*70*		*10 - 200*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
d7-N-MeFOSE-M	*61*		*10 - 181*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
d9-N-EtFOSE-M	*63*		*10 - 182*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C3-PFHxS	*79*		*11 - 180*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C5-PFHxA	*69*		*10 - 176*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C6-PFDA	*88*		*19 - 168*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C7-PFUnA	*68*		*10 - 182*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
d3-NMePFOSA	*44*		*10 - 137*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
d5-NEtPFOSA	*46*		*10 - 130*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C8-PFOSA	*64*		*10 - 149*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C2-PFDoA	*74*		*10 - 183*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C9-PFNA	*89*		*10 - 198*	*07/23/25 09:06*	*07/25/25 02:41*	*1*
13C-6:2 FTCA	*68*		*10 - 185*	*07/23/25 09:06*	*07/25/25 02:41*	*1*

Lab Sample ID: LCS 410-675113/2-B
Matrix: Water
Analysis Batch: 675778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 675113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4480		ng/L		74	61 - 131
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	4830		ng/L		80	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	6130		ng/L		101	58 - 136

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-675113/2-B
Matrix: Water
Analysis Batch: 675778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 675113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	4370		ng/L		71	57 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	4420		ng/L		74	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	4850		ng/L		80	55 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	4920		ng/L		77	50 - 137
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	4710		ng/L		74	53 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	5360		ng/L		84	59 - 137
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	4570		ng/L		71	59 - 135
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	4180		ng/L		65	54 - 131
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	5220		ng/L		82	61 - 134
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	4470		ng/L		70	58 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	4600		ng/L		81	56 - 130
Perfluorobutanoic acid (PFBA)	6400	5100		ng/L		80	54 - 144
Perfluorodecanesulfonic acid (PFDS)	6170	4610		ng/L		75	63 - 130
Perfluorodecanoic acid (PFDA)	6400	4620		ng/L		72	61 - 135
Perfluorododecanesulfonic acid (PFDoS)	6210	4550		ng/L		73	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	5400		ng/L		84	60 - 133
Perfluoroheptanesulfonic acid (PFHpS)	6090	4130		ng/L		68	51 - 132
Perfluoroheptanoic acid (PFHpA)	6400	5280		ng/L		82	54 - 133
Perfluorohexanesulfonic acid (PFHxS)	5840	3910		ng/L		67	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	5460		ng/L		85	55 - 132
Perfluorononanesulfonic acid (PFNS)	6160	4480		ng/L		73	65 - 136
Perfluorononanoic acid (PFNA)	6400	4760		ng/L		74	50 - 140
Perfluorooctanesulfonamide (PFOSA)	6400	5260		ng/L		82	62 - 136
Perfluorooctanesulfonic acid (PFOS)	5950	4280		ng/L		72	37 - 149
Perfluorooctanoic acid (PFOA)	6400	5410		ng/L		84	60 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	5120		ng/L		85	59 - 130
Perfluoropentanoic acid (PFPeA)	6400	4820		ng/L		75	59 - 133
Perfluorotetradecanoic acid (PFTeDA)	6400	4850		ng/L		76	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	5350		ng/L		84	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	5750		ng/L		90	58 - 133

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-675113/2-B
Matrix: Water
Analysis Batch: 675778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 675113

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4590		ng/L		80	34 - 134		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	4270		ng/L		67	10 - 155		
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	4770		ng/L		75	53 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	4520		ng/L		71	10 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	4820		ng/L		75	46 - 133		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	4010		ng/L		63	14 - 142		
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	5720		ng/L		89	52 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2-4:2 FTS	*90*		*19 - 191*
13C2-6:2 FTS	*86*		*13 - 200*
13C2-8:2 FTS	*101*		*10 - 200*
13C2-PFTeDA	*106*		*10 - 186*
13C3-HFPO-DA	*91*		*10 - 140*
13C3-PFBS	*91*		*24 - 176*
13C4-PFBA	*98*		*26 - 162*
13C4-PFHpA	*96*		*10 - 193*
13C5-PFPeA	*95*		*15 - 162*
13C8-PFOA	*91*		*27 - 160*
13C8-PFOS	*104*		*22 - 172*
d3-NMeFOSAA	*98*		*10 - 198*
d5-NEtFOSAA	*95*		*10 - 200*
d7-N-MeFOSE-M	*87*		*10 - 181*
d9-N-EtFOSE-M	*87*		*10 - 182*
13C3-PFHxS	*106*		*11 - 180*
13C5-PFHxA	*89*		*10 - 176*
13C6-PFDA	*107*		*19 - 168*
13C7-PFUnA	*87*		*10 - 182*
d3-NMePFOSA	*61*		*10 - 137*
d5-NEtPFOSA	*62*		*10 - 130*
13C8-PFOSA	*75*		*10 - 149*
13C2-PFDoA	*94*		*10 - 183*
13C9-PFNA	*107*		*10 - 198*
13C-6:2 FTCA	*84*		*10 - 185*

Lab Sample ID: LCSD 410-675113/3-B
Matrix: Water
Analysis Batch: 675778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 675113

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	4750		ng/L		79	61 - 131	6	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-675113/3-B
Matrix: Water
Analysis Batch: 675778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 675113

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			6000	4920		ng/L		82	57 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			6090	5380		ng/L		88	58 - 136	13	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			6140	4750		ng/L		77	57 - 134	8	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	4610		ng/L		77	59 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)			6050	4810		ng/L		80	55 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			6400	4990		ng/L		78	50 - 137	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			6400	4340		ng/L		68	53 - 130	8	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			6400	5360		ng/L		84	59 - 137	0	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			6400	4560		ng/L		71	59 - 135	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			6400	4250		ng/L		66	54 - 131	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			6400	5290		ng/L		83	61 - 134	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			6400	4740		ng/L		74	58 - 130	6	30
Perfluorobutanesulfonic acid (PFBS)			5680	4430		ng/L		78	56 - 130	4	30
Perfluorobutanoic acid (PFBA)			6400	4970		ng/L		78	54 - 144	3	30
Perfluorodecanesulfonic acid (PFDS)			6170	4760		ng/L		77	63 - 130	3	30
Perfluorodecanoic acid (PFDA)			6400	4810		ng/L		75	61 - 135	4	30
Perfluorododecanesulfonic acid (PFDoS)			6210	4860		ng/L		78	59 - 130	6	30
Perfluorododecanoic acid (PFDoA)			6400	5060		ng/L		79	60 - 133	6	30
Perfluoroheptanesulfonic acid (PFHpS)			6090	4170		ng/L		68	51 - 132	1	30
Perfluoroheptanoic acid (PFHpA)			6400	5090		ng/L		79	54 - 133	4	30
Perfluorohexanesulfonic acid (PFHxS)			5840	3950		ng/L		68	56 - 130	1	30
Perfluorohexanoic acid (PFHxA)			6400	5320		ng/L		83	55 - 132	3	30
Perfluorononanesulfonic acid (PFNS)			6160	4630		ng/L		75	65 - 136	3	30
Perfluorononanoic acid (PFNA)			6400	4830		ng/L		76	50 - 140	2	30
Perfluorooctanesulfonamide (PFOSA)			6400	5180		ng/L		81	62 - 136	2	30
Perfluorooctanesulfonic acid (PFOS)			5950	4340		ng/L		73	37 - 149	1	30
Perfluorooctanoic acid (PFOA)			6400	5390		ng/L		84	60 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)			6020	4570		ng/L		76	59 - 130	11	30
Perfluoropentanoic acid (PFPeA)			6400	4780		ng/L		75	59 - 133	1	30
Perfluorotetradecanoic acid (PFTeDA)			6400	4740		ng/L		74	62 - 130	2	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-675113/3-B
Matrix: Water
Analysis Batch: 675778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 675113

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorotridecanoic acid (PFTrDA)			6400	5410		ng/L		85	53 - 133	1	30
Perfluoroundecanoic acid (PFUnA)			6400	5350		ng/L		84	58 - 133	7	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4300		ng/L		75	34 - 134	7	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	4060		ng/L		63	10 - 155	5	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	4660		ng/L		73	53 - 135	2	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	4000		ng/L		63	10 - 150	12	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	4680		ng/L		73	46 - 133	3	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	3890		ng/L		61	14 - 142	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	5560		ng/L		87	52 - 130	3	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2-4:2 FTS	*88*		*19 - 191*
13C2-6:2 FTS	*87*		*13 - 200*
13C2-8:2 FTS	*91*		*10 - 200*
13C2-PFTeDA	*99*		*10 - 186*
13C3-HFPO-DA	*89*		*10 - 140*
13C3-PFBS	*90*		*24 - 176*
13C4-PFBA	*97*		*26 - 162*
13C4-PFHpA	*96*		*10 - 193*
13C5-PFPeA	*92*		*15 - 162*
13C8-PFOA	*86*		*27 - 160*
13C8-PFOS	*104*		*22 - 172*
d3-NMeFOSAA	*99*		*10 - 198*
d5-NEtFOSAA	*99*		*10 - 200*
d7-N-MeFOSE-M	*80*		*10 - 181*
d9-N-EtFOSE-M	*82*		*10 - 182*
13C3-PFHxS	*103*		*11 - 180*
13C5-PFHxA	*91*		*10 - 176*
13C6-PFDA	*102*		*19 - 168*
13C7-PFUnA	*90*		*10 - 182*
d3-NMePFOSA	*58*		*10 - 137*
d5-NEtPFOSA	*60*		*10 - 130*
13C8-PFOSA	*73*		*10 - 149*
13C2-PFDoA	*94*		*10 - 183*
13C9-PFNA	*107*		*10 - 198*
13C-6:2 FTCA	*85*		*10 - 185*

Method: 537 TOP - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-690687/2-B
Matrix: Water
Analysis Batch: 695210

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 690687

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorodecanoic acid (PFDA)	275	J	1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 14:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		08/26/25 10:51	09/05/25 14:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/26/25 10:51	09/05/25 14:58	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 14:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 14:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 14:58	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 14:58	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		08/26/25 10:51	09/05/25 14:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/26/25 10:51	09/05/25 14:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 14:58	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-690687/2-B
Matrix: Water
Analysis Batch: 695210

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 690687

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 14:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		08/26/25 10:51	09/05/25 14:58	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 14:58	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/26/25 10:51	09/05/25 14:58	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		08/26/25 10:51	09/05/25 14:58	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*82*		*10 - 168*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C5 PFPeA	*87*		*15 - 189*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C5 PFHxA	*80*		*20 - 165*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C4 PFHpA	*80*		*33 - 166*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C8 PFOA	*103*		*40 - 154*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C9 PFNA	*83*		*39 - 162*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C6 PFDA	*86*		*41 - 153*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C7 PFUnA	*81*		*35 - 161*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C2-PFDoDA	*89*		*22 - 165*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C2 PFTeDA	*82*		*17 - 156*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C3 PFBS	*89*		*27 - 200*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C3 PFHxS	*76*		*39 - 164*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C8 PFOS	*83*		*44 - 153*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C8 FOSA	*74*		*11 - 149*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
d5-NEtFOSAA	*87*		*30 - 180*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
M2-6:2 FTS	*95*		*26 - 200*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
M2-8:2 FTS	*97*		*27 - 200*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C3 HFPO-DA	*81*		*11 - 166*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
d7-N-MeFOSE-M	*75*		*10 - 154*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
d9-N-EtFOSE-M	*70*		*10 - 146*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
d5-NEtPFOSA	*70*		*10 - 130*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
d3-NMePFOSA	*67*		*10 - 130*	*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C-6:2 FTCA	*93*		*15 - 182*	*08/26/25 10:51*	*09/05/25 14:58*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C4 PFOA				*08/26/25 10:51*	*09/05/25 14:58*	*1*
13C2 PFUnA				*08/26/25 10:51*	*09/05/25 14:58*	*1*

Lab Sample ID: LCS 410-690687/3-B
Matrix: Water
Analysis Batch: 695210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 690687

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12800	14400		ng/L		112	56 - 130
Perfluoropentanoic acid (PFPeA)	12800	13800		ng/L		108	56 - 130
Perfluorohexanoic acid (PFHxA)	12800	14100		ng/L		110	54 - 130
Perfluoroheptanoic acid (PFHpA)	12800	14800		ng/L		116	57 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-690687/3-B
Matrix: Water
Analysis Batch: 695210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 690687

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanoic acid (PFOA)	12800	10300		ng/L		80	58 - 130
Perfluorononanoic acid (PFNA)	12800	13900		ng/L		108	61 - 130
Perfluorodecanoic acid (PFDA)	12800	12800		ng/L		100	61 - 130
Perfluoroundecanoic acid (PFUnA)	12800	14200		ng/L		111	60 - 130
Perfluorododecanoic acid (PFDoA)	12800	14000		ng/L		110	59 - 130
Perfluorotridecanoic acid (PFTrDA)	12800	15600		ng/L		122	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	12800	14300		ng/L		112	59 - 130
Perfluorobutanesulfonic acid (PFBS)	11400	13300		ng/L		117	58 - 130
Perfluoropentanesulfonic acid (PFPeS)	12000	13900		ng/L		116	55 - 130
Perfluorohexanesulfonic acid (PFHxS)	11700	13100		ng/L		113	59 - 130
Perfluoroheptanesulfonic acid (PFHpS)	12200	13100		ng/L		107	55 - 130
Perfluorooctanesulfonic acid (PFOS)	11900	12400		ng/L		104	59 - 130
Perfluorononanesulfonic acid (PFNS)	12300	13500		ng/L		110	58 - 130
Perfluorodecanesulfonic acid (PFDS)	12300	12900		ng/L		104	53 - 130
Perfluorododecanesulfonic acid (PFDoS)	12400	12400		ng/L		100	51 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	12700		ng/L		106	59 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	11500		ng/L		95	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	10800		ng/L		88	55 - 130
Perfluorooctanesulfonamide (PFOSA)	12800	13500		ng/L		105	64 - 133
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	13700		ng/L		107	59 - 148
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	13400		ng/L		105	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	12300		ng/L		96	58 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	11900		ng/L		93	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	13500		ng/L		105	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	12300		ng/L		96	61 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	12800		ng/L		100	47 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	13000		ng/L		107	57 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	14700		ng/L		115	56 - 137
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	13600		ng/L		106	49 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-690687/3-B
Matrix: Water
Analysis Batch: 695210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 690687

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	14000		ng/L		110	50 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	12400		ng/L		104	58 - 130		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	13200		ng/L		109	55 - 130		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	13300		ng/L		116	50 - 130		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	13900		ng/L		109	34 - 148		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	13100		ng/L		102	45 - 139		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	12000		ng/L		94	38 - 135		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*92*		*10 - 168*
13C5 PFPeA	*93*		*15 - 189*
13C5 PFHxA	*85*		*20 - 165*
13C4 PFHpA	*90*		*33 - 166*
13C8 PFOA	*110*		*40 - 154*
13C9 PFNA	*91*		*39 - 162*
13C6 PFDA	*98*		*41 - 153*
13C7 PFUnA	*88*		*35 - 161*
13C2-PFDoDA	*84*		*22 - 165*
13C2 PFTeDA	*85*		*17 - 156*
13C3 PFBS	*92*		*27 - 200*
13C3 PFHxS	*85*		*39 - 164*
13C8 PFOS	*92*		*44 - 153*
13C8 FOSA	*74*		*11 - 149*
d5-NEtFOSAA	*101*		*30 - 180*
M2-6:2 FTS	*102*		*26 - 200*
M2-8:2 FTS	*111*		*27 - 200*
13C3 HFPO-DA	*87*		*11 - 166*
d7-N-MeFOSE-M	*73*		*10 - 154*
d9-N-EtFOSE-M	*79*		*10 - 146*
d5-NEtPFOSA	*74*		*10 - 130*
d3-NMePFOSA	*71*		*10 - 130*
13C-6:2 FTCA	*100*		*15 - 182*

Lab Sample ID: LCSD 410-690687/4-B
Matrix: Water
Analysis Batch: 695210

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 690687

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			12800	13800		ng/L		108	56 - 130	4	30
Perfluoropentanoic acid (PFPeA)			12800	13300		ng/L		104	56 - 130	4	30
Perfluorohexanoic acid (PFHxA)			12800	13800		ng/L		108	54 - 130	2	30
Perfluoroheptanoic acid (PFHpA)			12800	14200		ng/L		111	57 - 130	5	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-690687/4-B
Matrix: Water
Analysis Batch: 695210

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 690687

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)	12800	10100		ng/L		79	58 - 130	1	30
Perfluorononanoic acid (PFNA)	12800	13900		ng/L		109	61 - 130	0	30
Perfluorodecanoic acid (PFDA)	12800	13800		ng/L		108	61 - 130	7	30
Perfluoroundecanoic acid (PFUnA)	12800	13800		ng/L		108	60 - 130	3	30
Perfluorododecanoic acid (PFDoA)	12800	14600		ng/L		114	59 - 130	4	30
Perfluorotridecanoic acid (PFTrDA)	12800	14500		ng/L		114	56 - 130	7	30
Perfluorotetradecanoic acid (PFTeDA)	12800	13100		ng/L		102	59 - 130	9	30
Perfluorobutanesulfonic acid (PFBS)	11400	12900		ng/L		113	58 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)	12000	13300		ng/L		110	55 - 130	5	30
Perfluorohexanesulfonic acid (PFHxS)	11700	12200		ng/L		105	59 - 130	7	30
Perfluoroheptanesulfonic acid (PFHpS)	12200	12700		ng/L		104	55 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	11900	12200		ng/L		103	59 - 130	1	30
Perfluorononanesulfonic acid (PFNS)	12300	13900		ng/L		113	58 - 130	3	30
Perfluorodecanesulfonic acid (PFDS)	12300	12300		ng/L		100	53 - 130	5	30
Perfluorododecanesulfonic acid (PFDoS)	12400	13300		ng/L		107	51 - 130	7	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	14000		ng/L		117	59 - 130	9	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	13800		ng/L		113	56 - 130	18	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	12000		ng/L		98	55 - 130	10	30
Perfluorooctanesulfonamide (PFOSA)	12800	12600		ng/L		99	64 - 133	6	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	13300		ng/L		104	59 - 148	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	13000		ng/L		102	60 - 140	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	12400		ng/L		97	58 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	12400		ng/L		97	57 - 130	4	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	13000		ng/L		102	60 - 130	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	12700		ng/L		99	61 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	12400		ng/L		97	47 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	12700		ng/L		105	57 - 130	3	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	14600		ng/L		114	56 - 137	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	13300		ng/L		104	49 - 130	2	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-690687/4-B
Matrix: Water
Analysis Batch: 695210

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 690687

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	14000		ng/L		109	50 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	13100		ng/L		110	58 - 130	6	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	13400		ng/L		111	55 - 130	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	12500		ng/L		109	50 - 130	6	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	13200		ng/L		103	34 - 148	5	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	12900		ng/L		101	45 - 139	1	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	12300		ng/L		96	38 - 135	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*85*		*10 - 168*
13C5 PFPeA	*89*		*15 - 189*
13C5 PFHxA	*88*		*20 - 165*
13C4 PFHpA	*90*		*33 - 166*
13C8 PFOA	*107*		*40 - 154*
13C9 PFNA	*88*		*39 - 162*
13C6 PFDA	*89*		*41 - 153*
13C7 PFUnA	*86*		*35 - 161*
13C2-PFDoDA	*83*		*22 - 165*
13C2 PFTeDA	*85*		*17 - 156*
13C3 PFBS	*92*		*27 - 200*
13C3 PFHxS	*87*		*39 - 164*
13C8 PFOS	*92*		*44 - 153*
13C8 FOSA	*74*		*11 - 149*
d5-NEtFOSAA	*93*		*30 - 180*
M2-6:2 FTS	*88*		*26 - 200*
M2-8:2 FTS	*102*		*27 - 200*
13C3 HFPO-DA	*90*		*11 - 166*
d7-N-MeFOSE-M	*74*		*10 - 154*
d9-N-EtFOSE-M	*73*		*10 - 146*
d5-NEtPFOSA	*69*		*10 - 130*
d3-NMePFOSA	*69*		*10 - 130*
13C-6:2 FTCA	*98*		*15 - 182*

LCMS

Prep Batch: 671021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-1	DC320021 - Mist - PRE	Total/NA	Water	EPA 537 (Mod)	
410-231749-2	DC320021 - Mist - POST	Total/NA	Water	EPA 537 (Mod)	
410-231749-3	DC320021 - WW - PRE	Total/NA	Water	EPA 537 (Mod)	
410-231749-4	DC320021 - DET - 1	Total/NA	Water	EPA 537 (Mod)	
410-231749-5	DC320021 - DET - 2	Total/NA	Water	EPA 537 (Mod)	
410-231749-9	DC320021 - DUP	Total/NA	Water	EPA 537 (Mod)	
MB 410-671021/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-671021/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-671021/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Prep Batch: 671228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-4	DC320021 - DET - 1	Post-Treatment	Water	TOP Post Prep	
410-231749-5	DC320021 - DET - 2	Post-Treatment	Water	TOP Post Prep	
410-231749-6	DC320021 - SS	Post-Treatment	Water	TOP Post Prep	
MB 410-671228/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-671228/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-671228/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-671228/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Cleanup Batch: 671728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-1	DC320021 - Mist - PRE	Total/NA	Water	Extract Aliquot	671021
410-231749-2	DC320021 - Mist - POST	Total/NA	Water	Extract Aliquot	671021
410-231749-3	DC320021 - WW - PRE	Total/NA	Water	Extract Aliquot	671021
410-231749-4	DC320021 - DET - 1	Total/NA	Water	Extract Aliquot	671021
410-231749-5	DC320021 - DET - 2	Total/NA	Water	Extract Aliquot	671021
410-231749-9	DC320021 - DUP	Total/NA	Water	Extract Aliquot	671021
MB 410-671021/1-B	Method Blank	Total/NA	Water	Extract Aliquot	671021
LCS 410-671021/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	671021
LCSD 410-671021/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	671021

Cleanup Batch: 672755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-4	DC320021 - DET - 1	Post-Treatment	Water	Extract Aliquot	671228
410-231749-5	DC320021 - DET - 2	Post-Treatment	Water	Extract Aliquot	671228
410-231749-6	DC320021 - SS	Post-Treatment	Water	Extract Aliquot	671228
MB 410-671228/1-B	Method Blank	Total/NA	Water	Extract Aliquot	671228
MB 410-671228/2-B	Method Blank	Total/NA	Water	Extract Aliquot	671228
LCS 410-671228/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	671228
LCSD 410-671228/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	671228

Analysis Batch: 673666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-1	DC320021 - Mist - PRE	Total/NA	Water	537 IDA	671728
410-231749-2	DC320021 - Mist - POST	Total/NA	Water	537 IDA	671728
410-231749-3	DC320021 - WW - PRE	Total/NA	Water	537 IDA	671728
410-231749-4	DC320021 - DET - 1	Total/NA	Water	537 IDA	671728
410-231749-5	DC320021 - DET - 2	Total/NA	Water	537 IDA	671728
410-231749-9	DC320021 - DUP	Total/NA	Water	537 IDA	671728
MB 410-671021/1-B	Method Blank	Total/NA	Water	537 IDA	671728

LCMS (Continued)

Analysis Batch: 673666 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-671021/2-B	Lab Control Sample	Total/NA	Water	537 IDA	671728
LCSD 410-671021/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	671728

Analysis Batch: 673669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-4	DC320021 - DET - 1	Post-Treatment	Water	537 TOP	672755
410-231749-5	DC320021 - DET - 2	Post-Treatment	Water	537 TOP	672755
410-231749-6	DC320021 - SS	Post-Treatment	Water	537 TOP	672755
MB 410-671228/1-B	Method Blank	Total/NA	Water	537 TOP	672755
MB 410-671228/2-B	Method Blank	Total/NA	Water	537 TOP	672755
LCS 410-671228/3-B	Lab Control Sample	Total/NA	Water	537 TOP	672755
LCSD 410-671228/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	672755

Prep Batch: 675113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-4 - RE	DC320021 - DET - 1	Total/NA	Water	EPA 537 (Mod)	
410-231749-5 - RE	DC320021 - DET - 2	Total/NA	Water	EPA 537 (Mod)	
410-231749-6	DC320021 - SS	Total/NA	Water	EPA 537 (Mod)	
410-231749-7	DC320021 - FB	Total/NA	Water	EPA 537 (Mod)	
410-231749-8	DC320021 - EB	Total/NA	Water	EPA 537 (Mod)	
MB 410-675113/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-675113/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-675113/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 675345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-4 - RE	DC320021 - DET - 1	Total/NA	Water	Extract Aliquot	675113
410-231749-5 - RE	DC320021 - DET - 2	Total/NA	Water	Extract Aliquot	675113
410-231749-6	DC320021 - SS	Total/NA	Water	Extract Aliquot	675113
410-231749-7	DC320021 - FB	Total/NA	Water	Extract Aliquot	675113
410-231749-8	DC320021 - EB	Total/NA	Water	Extract Aliquot	675113
MB 410-675113/1-B	Method Blank	Total/NA	Water	Extract Aliquot	675113
LCS 410-675113/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	675113
LCSD 410-675113/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	675113

Analysis Batch: 675778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-4 - RE	DC320021 - DET - 1	Total/NA	Water	537 IDA	675345
410-231749-5 - RE	DC320021 - DET - 2	Total/NA	Water	537 IDA	675345
410-231749-6	DC320021 - SS	Total/NA	Water	537 IDA	675345
410-231749-7	DC320021 - FB	Total/NA	Water	537 IDA	675345
410-231749-8	DC320021 - EB	Total/NA	Water	537 IDA	675345
MB 410-675113/1-B	Method Blank	Total/NA	Water	537 IDA	675345
LCS 410-675113/2-B	Lab Control Sample	Total/NA	Water	537 IDA	675345
LCSD 410-675113/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	675345

Prep Batch: 690687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-1	DC320021 - Mist - PRE	Post-Treatment	Water	TOP Post Prep	
410-231749-2	DC320021 - Mist - POST	Post-Treatment	Water	TOP Post Prep	
410-231749-3	DC320021 - WW - PRE	Post-Treatment	Water	TOP Post Prep	

LCMS (Continued)

Prep Batch: 690687 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-4 - RE	DC320021 - DET - 1	Post-Treatment	Water	TOP Post Prep	
410-231749-5 - RE	DC320021 - DET - 2	Post-Treatment	Water	TOP Post Prep	
410-231749-6 - RE	DC320021 - SS	Post-Treatment	Water	TOP Post Prep	
410-231749-6 - REDL	DC320021 - SS	Post-Treatment	Water	TOP Post Prep	
MB 410-690687/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-690687/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-690687/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-690687/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Cleanup Batch: 691948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-1	DC320021 - Mist - PRE	Post-Treatment	Water	Extract Aliquot	690687
410-231749-2	DC320021 - Mist - POST	Post-Treatment	Water	Extract Aliquot	690687
410-231749-3	DC320021 - WW - PRE	Post-Treatment	Water	Extract Aliquot	690687
410-231749-4 - RE	DC320021 - DET - 1	Post-Treatment	Water	Extract Aliquot	690687
410-231749-5 - RE	DC320021 - DET - 2	Post-Treatment	Water	Extract Aliquot	690687
410-231749-6 - REDL	DC320021 - SS	Post-Treatment	Water	Extract Aliquot	690687
410-231749-6 - RE	DC320021 - SS	Post-Treatment	Water	Extract Aliquot	690687
MB 410-690687/1-B	Method Blank	Total/NA	Water	Extract Aliquot	690687
MB 410-690687/2-B	Method Blank	Total/NA	Water	Extract Aliquot	690687
LCS 410-690687/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	690687
LCSD 410-690687/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	690687

Analysis Batch: 695210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231749-1	DC320021 - Mist - PRE	Post-Treatment	Water	537 TOP	691948
410-231749-2	DC320021 - Mist - POST	Post-Treatment	Water	537 TOP	691948
410-231749-3	DC320021 - WW - PRE	Post-Treatment	Water	537 TOP	691948
410-231749-4 - RE	DC320021 - DET - 1	Post-Treatment	Water	537 TOP	691948
410-231749-5 - RE	DC320021 - DET - 2	Post-Treatment	Water	537 TOP	691948
410-231749-6 - RE	DC320021 - SS	Post-Treatment	Water	537 TOP	691948
410-231749-6 - REDL	DC320021 - SS	Post-Treatment	Water	537 TOP	691948
MB 410-690687/1-B	Method Blank	Total/NA	Water	537 TOP	691948
MB 410-690687/2-B	Method Blank	Total/NA	Water	537 TOP	691948
LCS 410-690687/3-B	Lab Control Sample	Total/NA	Water	537 TOP	691948
LCSD 410-690687/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	691948

Client Sample ID: DC320021 - Mist - PRE

Lab Sample ID: 410-231749-1

Date Collected: 07/03/25 11:20

Matrix: Water

Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			671021	WHU6	ELLE	07/14/25 15:42
Total/NA	Cleanup	Extract Aliquot			671728	WHU6	ELLE	07/15/25 19:45
Total/NA	Analysis	537 IDA		1	673666	DSU6	ELLE	07/21/25 03:00
Post-Treatment	Prep	TOP Post Prep			690687	S7AC	ELLE	08/26/25 10:51
Post-Treatment	Cleanup	Extract Aliquot			691948	S7AC	ELLE	08/28/25 12:15
Post-Treatment	Analysis	537 TOP		1	695210	QD9Y	ELLE	09/05/25 16:20

Client Sample ID: DC320021 - Mist - POST

Lab Sample ID: 410-231749-2

Date Collected: 07/03/25 11:30

Matrix: Water

Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			671021	WHU6	ELLE	07/14/25 15:42
Total/NA	Cleanup	Extract Aliquot			671728	WHU6	ELLE	07/15/25 19:45
Total/NA	Analysis	537 IDA		1	673666	DSU6	ELLE	07/21/25 03:13
Post-Treatment	Prep	TOP Post Prep			690687	S7AC	ELLE	08/26/25 10:51
Post-Treatment	Cleanup	Extract Aliquot			691948	S7AC	ELLE	08/28/25 12:15
Post-Treatment	Analysis	537 TOP		1	695210	QD9Y	ELLE	09/05/25 16:47

Client Sample ID: DC320021 - WW - PRE

Lab Sample ID: 410-231749-3

Date Collected: 07/03/25 11:40

Matrix: Water

Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			671021	WHU6	ELLE	07/14/25 15:42
Total/NA	Cleanup	Extract Aliquot			671728	WHU6	ELLE	07/15/25 19:45
Total/NA	Analysis	537 IDA		1	673666	DSU6	ELLE	07/21/25 03:27
Post-Treatment	Prep	TOP Post Prep			690687	S7AC	ELLE	08/26/25 10:51
Post-Treatment	Cleanup	Extract Aliquot			691948	S7AC	ELLE	08/28/25 12:15
Post-Treatment	Analysis	537 TOP		1	695210	QD9Y	ELLE	09/05/25 17:14

Client Sample ID: DC320021 - DET - 1

Lab Sample ID: 410-231749-4

Date Collected: 07/03/25 11:55

Matrix: Water

Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)	RE		675113	D5VP	ELLE	07/23/25 09:06
Total/NA	Cleanup	Extract Aliquot	RE		675345	D5VP	ELLE	07/23/25 16:00
Total/NA	Analysis	537 IDA	RE	1	675778	DSU6	ELLE	07/25/25 03:22
Total/NA	Prep	EPA 537 (Mod)			671021	WHU6	ELLE	07/14/25 15:42
Total/NA	Cleanup	Extract Aliquot			671728	WHU6	ELLE	07/15/25 19:45
Total/NA	Analysis	537 IDA		1	673666	DSU6	ELLE	07/21/25 03:40
Post-Treatment	Prep	TOP Post Prep			671228	S7AC	ELLE	07/15/25 07:01
Post-Treatment	Cleanup	Extract Aliquot			672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP		1	673669	DSU6	ELLE	07/20/25 19:18

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - DET - 1

Lab Sample ID: 410-231749-4

Date Collected: 07/03/25 11:55
Matrix: Water
Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep	RE		690687	S7AC	ELLE	08/26/25 10:51
Post-Treatment	Cleanup	Extract Aliquot	RE		691948	S7AC	ELLE	08/28/25 12:15
Post-Treatment	Analysis	537 TOP	RE	1	695210	QD9Y	ELLE	09/05/25 17:41

Client Sample ID: DC320021 - DET - 2

Lab Sample ID: 410-231749-5

Date Collected: 07/03/25 12:05
Matrix: Water
Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)	RE		675113	D5VP	ELLE	07/23/25 09:06
Total/NA	Cleanup	Extract Aliquot	RE		675345	D5VP	ELLE	07/23/25 16:00
Total/NA	Analysis	537 IDA	RE	1	675778	DSU6	ELLE	07/25/25 03:35
Total/NA	Prep	EPA 537 (Mod)			671021	WHU6	ELLE	07/14/25 15:42
Total/NA	Cleanup	Extract Aliquot			671728	WHU6	ELLE	07/15/25 19:45
Total/NA	Analysis	537 IDA		1	673666	DSU6	ELLE	07/21/25 04:07
Post-Treatment	Prep	TOP Post Prep			671228	S7AC	ELLE	07/15/25 07:21
Post-Treatment	Cleanup	Extract Aliquot			672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP		1	673669	DSU6	ELLE	07/20/25 19:31
Post-Treatment	Prep	TOP Post Prep	RE		690687	S7AC	ELLE	08/26/25 10:51
Post-Treatment	Cleanup	Extract Aliquot	RE		691948	S7AC	ELLE	08/28/25 12:15
Post-Treatment	Analysis	537 TOP	RE	1	695210	QD9Y	ELLE	09/05/25 18:08

Client Sample ID: DC320021 - SS

Lab Sample ID: 410-231749-6

Date Collected: 07/03/25 12:15
Matrix: Water
Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			675113	D5VP	ELLE	07/23/25 09:06
Total/NA	Cleanup	Extract Aliquot			675345	D5VP	ELLE	07/23/25 16:00
Total/NA	Analysis	537 IDA		1	675778	DSU6	ELLE	07/25/25 03:49
Post-Treatment	Prep	TOP Post Prep			671228	S7AC	ELLE	07/15/25 07:21
Post-Treatment	Cleanup	Extract Aliquot			672755	S7AC	ELLE	07/17/25 14:48
Post-Treatment	Analysis	537 TOP		1	673669	DSU6	ELLE	07/20/25 19:45
Post-Treatment	Prep	TOP Post Prep	RE		690687	S7AC	ELLE	08/26/25 10:51
Post-Treatment	Cleanup	Extract Aliquot	RE		691948	S7AC	ELLE	08/28/25 12:15
Post-Treatment	Analysis	537 TOP	RE	1	695210	QD9Y	ELLE	09/05/25 18:35
Post-Treatment	Prep	TOP Post Prep	REDL		690687	S7AC	ELLE	08/26/25 10:51
Post-Treatment	Cleanup	Extract Aliquot	REDL		691948	S7AC	ELLE	08/28/25 12:15
Post-Treatment	Analysis	537 TOP	REDL	10	695210	QD9Y	ELLE	09/05/25 19:03

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Client Sample ID: DC320021 - FB

Lab Sample ID: 410-231749-7

Date Collected: 07/03/25 12:25
Matrix: Water
Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			675113	D5VP	ELLE	07/23/25 09:06
Total/NA	Cleanup	Extract Aliquot			675345	D5VP	ELLE	07/23/25 16:00
Total/NA	Analysis	537 IDA		1	675778	DSU6	ELLE	07/25/25 04:02

Client Sample ID: DC320021 - EB

Lab Sample ID: 410-231749-8

Date Collected: 07/03/25 12:40
Matrix: Water
Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			675113	D5VP	ELLE	07/23/25 09:06
Total/NA	Cleanup	Extract Aliquot			675345	D5VP	ELLE	07/23/25 16:00
Total/NA	Analysis	537 IDA		1	675778	DSU6	ELLE	07/25/25 04:16

Client Sample ID: DC320021 - DUP

Lab Sample ID: 410-231749-9

Date Collected: 07/03/25 00:00
Matrix: Water
Date Received: 07/08/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			671021	WHU6	ELLE	07/14/25 15:42
Total/NA	Cleanup	Extract Aliquot			671728	WHU6	ELLE	07/15/25 19:45
Total/NA	Analysis	537 IDA		1	673666	DSU6	ELLE	07/21/25 05:02

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	EPA 537 (Mod)	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	EPA 537 (Mod)	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	EPA 537 (Mod)	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid (PFBS)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid (PFBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid (PFDS)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid (PFDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid (PFDoA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid (PFHpA)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid (PFHxA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid (PFNS)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid (PFNA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide (PFOSA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid (PFOS)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid (PFOA)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid (PFPeA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid (PFTrDA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid (PFUnA)
537 TOP	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 TOP	Fluorinated Alkyl Substances	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: DS0, PFAS

Job ID: 410-231749-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-231749-1	DC320021 - Mist - PRE	Water	07/03/25 11:20	07/08/25 10:00	North Carolina
410-231749-2	DC320021 - Mist - POST	Water	07/03/25 11:30	07/08/25 10:00	North Carolina
410-231749-3	DC320021 - WW - PRE	Water	07/03/25 11:40	07/08/25 10:00	North Carolina
410-231749-4	DC320021 - DET - 1	Water	07/03/25 11:55	07/08/25 10:00	North Carolina
410-231749-5	DC320021 - DET - 2	Water	07/03/25 12:05	07/08/25 10:00	North Carolina
410-231749-6	DC320021 - SS	Water	07/03/25 12:15	07/08/25 10:00	North Carolina
410-231749-7	DC320021 - FB	Water	07/03/25 12:25	07/08/25 10:00	North Carolina
410-231749-8	DC320021 - EB	Water	07/03/25 12:40	07/08/25 10:00	North Carolina
410-231749-9	DC320021 - DUP	Water	07/03/25 00:00	07/08/25 10:00	North Carolina

410-231749 Chain of Custody

Chain of Custody Record

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Client Information	Sampler: NWS + RES	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Mandy Klaben	Phone: 919-847-4241	E-Mail:	State of Origin: NC	Page: 1 of 1
Company: Hart + Hickman, PC	PWSID:			Job #: DSO.PFAS
Address: 3921 Sunset Ridge Rd	Due Date Requested: HH Standard			Preservation Codes:
City: Raleigh	TAT Requested (days): HH Standard			
State, Zip: NC, 27607	Compliance Project: Δ Yes Δ No			
Phone: 919-847-4241	PO #:			
Email: MKlaben@harthickman.com	WO #: 1			Other:
Project Name: DSO.PFAS	Eurofins' Project #: 75202985			
Site: A Cleaner World	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537	1633 TOP, (Post)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
DC320021-Mist-PRE	7/3/25	1120	G	W	N	N	X	X		* Report J-Flags + report ND <MDL
DC320021-Mist-POST	7/3/25	1130	G	W	N	N	X	X		
DC320021-WW-PRE	7/3/25	1140	G	W	N	N	X	X		* NC DEQ, DSCA + HH EDDs
DC320021-DET-1	7/3/25	1155	G	W	N	N	X	X		
DC320021-DET-2	7/3/25	1205	G	W	N	N	X	X		
DC320021-SS	7/3/25	1215	G	W	N	N	X	X		* High level / concentrated Solvent
DC320021-FB	7/3/25	1225	G	W	N	N	X			
DC320021-EB	7/3/25	1240	G	W	N	N	X			
DC320021-DUP	7/3/25	—	G	W	N	N	X			

Samples rec'd 7/8/25 1000 as ICO, re-entered under Lancaster @ Grain 7/11/25

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
NICK Stone	7/3/25 1400	HH	DAVID WICK	9-3-25 1400	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No			Cooler Temperature(s) °C and Other Remarks:	R: 0.7 C: 0.7	

Initial Temperature: 3.2 °C
Correction Factor: -0.3°C
Corrected Temperature: 2.9 °C
Temp IR Gun: CRY-T-132
Initials: RY BR PG DW DO LB

Ver: 05/06/2024

9/9/2025

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-231749-1

Login Number: 231749

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Foreman, Leah M

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Container preservation not listed on COC.
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/23/2025 2:48:53 AM

JOB DESCRIPTION

DS0 PFAS

JOB NUMBER

410-231540-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/23/2025 2:48:53 AM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

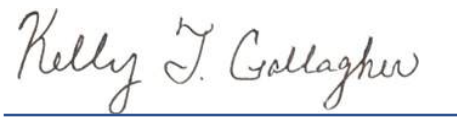


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Definitions/Glossary

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

Qualifiers

LCMS

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-231540-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 7/10/2025 9:50 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.3°C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The COC is missing Sample Preservation. This does not meet regulatory requirements.

Backup volume for 1633 method was placed in the freezer upon receipt.

PFAS
Method PFC_IDA: The recovery for labeled isotope: d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the opening continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following sample: DC320021-WW-Out (410-231540-1), the data is reported.

Method PFC_IDA: The recovery for labeled isotope: 13C-6:2 FTCA is outside the QC acceptance limits in the closing continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following sample: DC320021-WW-Out (410-231540-1), the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

Client Sample ID: DC320021-WW-Out **Lab Sample ID: 410-231540-1**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

Client Sample ID: DC320021-WW-Out
Date Collected: 07/08/25 08:45
Date Received: 07/10/25 09:50

Lab Sample ID: 410-231540-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		07/17/25 08:29	07/22/25 18:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	480	ng/L		07/17/25 08:29	07/22/25 18:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		07/17/25 08:29	07/22/25 18:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		07/17/25 08:29	07/22/25 18:17	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		07/17/25 08:29	07/22/25 18:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		950	290	ng/L		07/17/25 08:29	07/22/25 18:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		07/17/25 08:29	07/22/25 18:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorobutanoic acid (PFBA)	ND		2400	950	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorodecanoic acid (PFDA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorododecanoic acid (PFDoA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluoroheptanoic acid (PFHpA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorohexanoic acid (PFHxA)	ND		950	430	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorononanesulfonic acid (PFNS)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorononanoic acid (PFNA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		950	330	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		950	480	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorooctanoic acid (PFOA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluoropentanoic acid (PFPeA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluorotridecanoic acid (PFTrDA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluoroundecanoic acid (PFUnA)	ND		950	240	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		950	95	ng/L		07/17/25 08:29	07/22/25 18:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		950	140	ng/L		07/17/25 08:29	07/22/25 18:17	1

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

Client Sample ID: DC320021-WW-Out
Date Collected: 07/08/25 08:45
Date Received: 07/10/25 09:50

Lab Sample ID: 410-231540-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		950	95	ng/L		07/17/25 08:29	07/22/25 18:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		950	140	ng/L		07/17/25 08:29	07/22/25 18:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		950	95	ng/L		07/17/25 08:29	07/22/25 18:17	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		950	95	ng/L		07/17/25 08:29	07/22/25 18:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		950	95	ng/L		07/17/25 08:29	07/22/25 18:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*72*		*19 - 191*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C2-6:2 FTS	*71*		*13 - 200*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C2-8:2 FTS	*76*		*10 - 200*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C2-PFTeDA	*85*		*10 - 186*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C3-HFPO-DA	*81*		*10 - 140*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C3-PFBS	*78*		*24 - 176*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C4-PFBA	*77*		*26 - 162*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C4-PFHpA	*86*		*10 - 193*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C5-PFPeA	*81*		*15 - 162*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C8-PFOA	*72*		*27 - 160*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C8-PFOS	*79*		*22 - 172*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
d3-NMeFOSAA	*70*	*cn*	*10 - 198*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
d5-NEtFOSAA	*87*	*cn*	*10 - 200*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
d7-N-MeFOSE-M	*58*		*10 - 181*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
d9-N-EtFOSE-M	*41*		*10 - 182*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C3-PFHxS	*97*		*11 - 180*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C5-PFHxA	*81*		*10 - 176*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C6-PFDA	*85*		*19 - 168*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C7-PFUnA	*73*		*10 - 182*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
d3-NMePFOSA	*36*		*10 - 137*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
d5-NEtPFOSA	*26*		*10 - 130*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C8-PFOSA	*58*		*10 - 149*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C2-PFDoA	*81*		*10 - 183*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C9-PFNA	*76*		*10 - 198*	*07/17/25 08:29*	*07/22/25 18:17*	*1*
13C-6:2 FTCA	*97*	*cn*	*10 - 185*	*07/17/25 08:29*	*07/22/25 18:17*	*1*

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFTDA	HFPODA	C3PFBS	PFBA	C4PFHA
Lab Sample ID	Client Sample ID	(19-191)	(13-200)	(10-200)	(10-186)	(10-140)	(24-176)	(26-162)	(10-193)
410-231540-1	DC320021-WW-Out	72	71	76	85	81	78	77	86
LCS 410-672493/2-B	Lab Control Sample	73	71	72	67	71	74	68	75
LCSD 410-672493/3-B	Lab Control Sample Dup	58	65	69	70	64	72	73	73
MB 410-672493/1-B	Method Blank	83	88	97	93	96	85	84	91

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFPeA	C8PFOA	C8PFOS	d3NMFOS	d5NEFOS	NMFM	NEFM	C3PFHS
Lab Sample ID	Client Sample ID	(15-162)	(27-160)	(22-172)	(10-198)	(10-200)	(10-181)	(10-182)	(11-180)
410-231540-1	DC320021-WW-Out	81	72	79	70 cn	87 cn	58	41	97
LCS 410-672493/2-B	Lab Control Sample	67	64	72	87	85	28	27	84
LCSD 410-672493/3-B	Lab Control Sample Dup	68	62	74	88	81	34	32	83
MB 410-672493/1-B	Method Blank	81	76	89	118	113	31	33	99

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C5PHA	C6PFDA	13C7PUA	d3NMFSA	d5NPFSA	PFOSA	PFDoDA	C9PFNA
Lab Sample ID	Client Sample ID	(10-176)	(19-168)	(10-182)	(10-137)	(10-130)	(10-149)	(10-183)	(10-198)
410-231540-1	DC320021-WW-Out	81	85	73	36	26	58	81	76
LCS 410-672493/2-B	Lab Control Sample	70	71	66	15	14	59	64	65
LCSD 410-672493/3-B	Lab Control Sample Dup	68	78	65	18	17	59	68	71
MB 410-672493/1-B	Method Blank	81	91	77	17	16	73	85	81

		Percent Isotope Dilution Recovery (Acceptance Limits)
		MFHEA
Lab Sample ID	Client Sample ID	(10-185)
410-231540-1	DC320021-WW-Out	97 cn
LCS 410-672493/2-B	Lab Control Sample	65
LCSD 410-672493/3-B	Lab Control Sample Dup	82
MB 410-672493/1-B	Method Blank	91

Surrogate Legend

M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
PFTDA = 13C2-PFTeDA
HFPODA = 13C3-HFPO-DA
C3PFBS = 13C3-PFBS
PFBA = 13C4-PFBA
C4PFHA = 13C4-PFHpA
PFPeA = 13C5-PFPeA
C8PFOA = 13C8-PFOA
C8PFOS = 13C8-PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
C3PFHS = 13C3-PFHxS
13C5PHA = 13C5-PFHxA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
PFOSA = 13C8-PFOSA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-231540-1
Project/Site: DS0 PFAS

PFDoDA = 13C2-PFDoA
C9PFNA = 13C9-PFNA
MFHEA = 13C-6:2 FTCA

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-672493/1-B
Matrix: Water
Analysis Batch: 674581

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672493

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		07/17/25 08:29	07/22/25 17:23	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		07/17/25 08:29	07/22/25 17:23	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/17/25 08:29	07/22/25 17:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/17/25 08:29	07/22/25 17:23	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		07/17/25 08:29	07/22/25 17:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		07/17/25 08:29	07/22/25 17:23	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/17/25 08:29	07/22/25 17:23	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	100	ng/L		07/17/25 08:29	07/22/25 17:23	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	150	ng/L		07/17/25 08:29	07/22/25 17:23	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-672493/1-B
Matrix: Water
Analysis Batch: 674581

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672493

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	100	ng/L		07/17/25 08:29	07/22/25 17:23	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	150	ng/L		07/17/25 08:29	07/22/25 17:23	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	100	ng/L		07/17/25 08:29	07/22/25 17:23	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	100	ng/L		07/17/25 08:29	07/22/25 17:23	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	100	ng/L		07/17/25 08:29	07/22/25 17:23	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*83*		*19 - 191*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C2-6:2 FTS	*88*		*13 - 200*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C2-8:2 FTS	*97*		*10 - 200*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C2-PFTeDA	*93*		*10 - 186*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C3-HFPO-DA	*96*		*10 - 140*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C3-PFBS	*85*		*24 - 176*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C4-PFBA	*84*		*26 - 162*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C4-PFHpA	*91*		*10 - 193*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C5-PFPeA	*81*		*15 - 162*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C8-PFOA	*76*		*27 - 160*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C8-PFOS	*89*		*22 - 172*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
d3-NMeFOSAA	*118*		*10 - 198*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
d5-NEtFOSAA	*113*		*10 - 200*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
d7-N-MeFOSE-M	*31*		*10 - 181*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
d9-N-EtFOSE-M	*33*		*10 - 182*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C3-PFHxS	*99*		*11 - 180*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C5-PFHxA	*81*		*10 - 176*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C6-PFDA	*91*		*19 - 168*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C7-PFUnA	*77*		*10 - 182*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
d3-NMePFOSA	*17*		*10 - 137*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
d5-NEtPFOSA	*16*		*10 - 130*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C8-PFOSA	*73*		*10 - 149*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C2-PFDoA	*85*		*10 - 183*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C9-PFNA	*81*		*10 - 198*	*07/17/25 08:29*	*07/22/25 17:23*	*1*
13C-6:2 FTCA	*91*		*10 - 185*	*07/17/25 08:29*	*07/22/25 17:23*	*1*

Lab Sample ID: LCS 410-672493/2-B
Matrix: Water
Analysis Batch: 674581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672493

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4730		ng/L		78	61 - 131
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5100		ng/L		85	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	5510		ng/L		90	58 - 136

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-672493/2-B
Matrix: Water
Analysis Batch: 674581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672493

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	5220		ng/L		85	57 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	4330		ng/L		73	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	4790		ng/L		79	55 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	5640		ng/L		88	50 - 137
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	5150		ng/L		80	53 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	6060		ng/L		95	59 - 137
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	4880		ng/L		76	59 - 135
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	4520		ng/L		71	54 - 131
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	5840		ng/L		91	61 - 134
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	5030		ng/L		79	58 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	4610		ng/L		81	56 - 130
Perfluorobutanoic acid (PFBA)	6400	5450		ng/L		85	54 - 144
Perfluorodecanesulfonic acid (PFDS)	6170	4950		ng/L		80	63 - 130
Perfluorodecanoic acid (PFDA)	6400	5190		ng/L		81	61 - 135
Perfluorododecanesulfonic acid (PFDoS)	6210	5040		ng/L		81	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	5800		ng/L		91	60 - 133
Perfluoroheptanesulfonic acid (PFHpS)	6090	4470		ng/L		73	51 - 132
Perfluoroheptanoic acid (PFHpA)	6400	5100		ng/L		80	54 - 133
Perfluorohexanesulfonic acid (PFHxS)	5840	3950		ng/L		68	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	5410		ng/L		85	55 - 132
Perfluorononanesulfonic acid (PFNS)	6160	4740		ng/L		77	65 - 136
Perfluorononanoic acid (PFNA)	6400	5150		ng/L		80	50 - 140
Perfluorooctanesulfonamide (PFOSA)	6400	5910		ng/L		92	62 - 136
Perfluorooctanesulfonic acid (PFOS)	5950	5200		ng/L		87	37 - 149
Perfluorooctanoic acid (PFOA)	6400	5840		ng/L		91	60 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	5020		ng/L		83	59 - 130
Perfluoropentanoic acid (PFPeA)	6400	5350		ng/L		84	59 - 133
Perfluorotetradecanoic acid (PFTeDA)	6400	5500		ng/L		86	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	5570		ng/L		87	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	5720		ng/L		89	58 - 133

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-672493/2-B
Matrix: Water
Analysis Batch: 674581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672493

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4670		ng/L		82	34 - 134		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5950		ng/L		93	10 - 155		
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5200		ng/L		81	53 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	6790		ng/L		106	10 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	4590		ng/L		72	46 - 133		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	5930		ng/L		93	14 - 142		
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	5300		ng/L		83	52 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2-4:2 FTS	*73*		*19 - 191*
13C2-6:2 FTS	*71*		*13 - 200*
13C2-8:2 FTS	*72*		*10 - 200*
13C2-PFTeDA	*67*		*10 - 186*
13C3-HFPO-DA	*71*		*10 - 140*
13C3-PFBS	*74*		*24 - 176*
13C4-PFBA	*68*		*26 - 162*
13C4-PFHpA	*75*		*10 - 193*
13C5-PFPeA	*67*		*15 - 162*
13C8-PFOA	*64*		*27 - 160*
13C8-PFOS	*72*		*22 - 172*
d3-NMeFOSAA	*87*		*10 - 198*
d5-NEtFOSAA	*85*		*10 - 200*
d7-N-MeFOSE-M	*28*		*10 - 181*
d9-N-EtFOSE-M	*27*		*10 - 182*
13C3-PFHxS	*84*		*11 - 180*
13C5-PFHxA	*70*		*10 - 176*
13C6-PFDA	*71*		*19 - 168*
13C7-PFUnA	*66*		*10 - 182*
d3-NMePFOSA	*15*		*10 - 137*
d5-NEtPFOSA	*14*		*10 - 130*
13C8-PFOSA	*59*		*10 - 149*
13C2-PFDoA	*64*		*10 - 183*
13C9-PFNA	*65*		*10 - 198*
13C-6:2 FTCA	*65*		*10 - 185*

Lab Sample ID: LCSD 410-672493/3-B
Matrix: Water
Analysis Batch: 674581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672493

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	4840		ng/L		80	61 - 131	2	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-672493/3-B
Matrix: Water
Analysis Batch: 674581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672493

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5200		ng/L		87	57 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	5570		ng/L		91	58 - 136	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	5290		ng/L		86	57 - 134	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	4610		ng/L		77	59 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	5160		ng/L		85	55 - 130	8	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	5620		ng/L		88	50 - 137	0	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	5450		ng/L		85	53 - 130	6	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	6020		ng/L		94	59 - 137	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	5110		ng/L		80	59 - 135	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	4420		ng/L		69	54 - 131	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	6330		ng/L		99	61 - 134	8	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	5120		ng/L		80	58 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	5680	4790		ng/L		84	56 - 130	4	30
Perfluorobutanoic acid (PFBA)	6400	5400		ng/L		84	54 - 144	1	30
Perfluorodecanesulfonic acid (PFDS)	6170	5000		ng/L		81	63 - 130	1	30
Perfluorodecanoic acid (PFDA)	6400	4920		ng/L		77	61 - 135	5	30
Perfluorododecanesulfonic acid (PFDoS)	6210	5010		ng/L		81	59 - 130	0	30
Perfluorododecanoic acid (PFDoA)	6400	5330		ng/L		83	60 - 133	8	30
Perfluoroheptanesulfonic acid (PFHpS)	6090	4420		ng/L		72	51 - 132	1	30
Perfluoroheptanoic acid (PFHpA)	6400	5120		ng/L		80	54 - 133	0	30
Perfluorohexanesulfonic acid (PFHxS)	5840	4110		ng/L		70	56 - 130	4	30
Perfluorohexanoic acid (PFHxA)	6400	5350		ng/L		84	55 - 132	1	30
Perfluorononanesulfonic acid (PFNS)	6160	5010		ng/L		81	65 - 136	6	30
Perfluorononanoic acid (PFNA)	6400	5240		ng/L		82	50 - 140	2	30
Perfluorooctanesulfonamide (PFOSA)	6400	6010		ng/L		94	62 - 136	2	30
Perfluorooctanesulfonic acid (PFOS)	5950	5500		ng/L		92	37 - 149	6	30
Perfluorooctanoic acid (PFOA)	6400	5900		ng/L		92	60 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	6020	5000		ng/L		83	59 - 130	0	30
Perfluoropentanoic acid (PFPeA)	6400	5600		ng/L		87	59 - 133	5	30
Perfluorotetradecanoic acid (PFTeDA)	6400	5660		ng/L		88	62 - 130	3	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-672493/3-B
Matrix: Water
Analysis Batch: 674581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672493

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorotridecanoic acid (PFTrDA)			6400	5180		ng/L		81	53 - 133	7	30
Perfluoroundecanoic acid (PFUnA)			6400	5770		ng/L		90	58 - 133	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4790		ng/L		84	34 - 134	3	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5660		ng/L		88	10 - 155	5	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5030		ng/L		79	53 - 135	3	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	5520		ng/L		86	10 - 150	21	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	4890		ng/L		76	46 - 133	6	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	6440		ng/L		101	14 - 142	8	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	5230		ng/L		82	52 - 130	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2-4:2 FTS	*58*		*19 - 191*
13C2-6:2 FTS	*65*		*13 - 200*
13C2-8:2 FTS	*69*		*10 - 200*
13C2-PFTeDA	*70*		*10 - 186*
13C3-HFPO-DA	*64*		*10 - 140*
13C3-PFBS	*72*		*24 - 176*
13C4-PFBA	*73*		*26 - 162*
13C4-PFHpA	*73*		*10 - 193*
13C5-PFPeA	*68*		*15 - 162*
13C8-PFOA	*62*		*27 - 160*
13C8-PFOS	*74*		*22 - 172*
d3-NMeFOSAA	*88*		*10 - 198*
d5-NEtFOSAA	*81*		*10 - 200*
d7-N-MeFOSE-M	*34*		*10 - 181*
d9-N-EtFOSE-M	*32*		*10 - 182*
13C3-PFHxS	*83*		*11 - 180*
13C5-PFHxA	*68*		*10 - 176*
13C6-PFDA	*78*		*19 - 168*
13C7-PFUnA	*65*		*10 - 182*
d3-NMePFOSA	*18*		*10 - 137*
d5-NEtPFOSA	*17*		*10 - 130*
13C8-PFOSA	*59*		*10 - 149*
13C2-PFDoA	*68*		*10 - 183*
13C9-PFNA	*71*		*10 - 198*
13C-6:2 FTCA	*82*		*10 - 185*

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

LCMS

Prep Batch: 672493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231540-1	DC320021-WW-Out	Total/NA	Water	EPA 537 (Mod)	
MB 410-672493/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-672493/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-672493/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 674028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231540-1	DC320021-WW-Out	Total/NA	Water	Extract Aliquot	672493
MB 410-672493/1-B	Method Blank	Total/NA	Water	Extract Aliquot	672493
LCS 410-672493/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	672493
LCSD 410-672493/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	672493

Analysis Batch: 674581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231540-1	DC320021-WW-Out	Total/NA	Water	537 IDA	674028
MB 410-672493/1-B	Method Blank	Total/NA	Water	537 IDA	674028
LCS 410-672493/2-B	Lab Control Sample	Total/NA	Water	537 IDA	674028
LCSD 410-672493/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	674028

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

Client Sample ID: DC320021-WW-Out

Lab Sample ID: 410-231540-1

Date Collected: 07/08/25 08:45

Matrix: Water

Date Received: 07/10/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			672493	D5VP	ELLE	07/17/25 08:29
Total/NA	Cleanup	Extract Aliquot			674028	D5VP	ELLE	07/21/25 13:36
Total/NA	Analysis	537 IDA		1	674581	DSU6	ELLE	07/22/25 18:17

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	EPA 537 (Mod)	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	EPA 537 (Mod)	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	EPA 537 (Mod)	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid (PFBS)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid (PFBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid (PFDS)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid (PFDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid (PFDoA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid (PFHpA)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid (PFHxA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid (PFNS)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid (PFNA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide (PFOSA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid (PFOS)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid (PFOA)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid (PFPeA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid (PFTrDA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS

Job ID: 410-231540-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-231540-1	DC320021-WW-Out	Water	07/08/25 08:45	07/10/25 09:50

Environmental Analysis Request/

410-231540 Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

| | | |

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-231540-1

Login Number: 231540

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Perez, Alexander

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Container preservation not listed on COC.
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 10/15/2025 11:18:07 AM

JOB DESCRIPTION

DS0 PFAS - ACW Site #203

JOB NUMBER

410-231540-2

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
10/15/2025 11:18:07 AM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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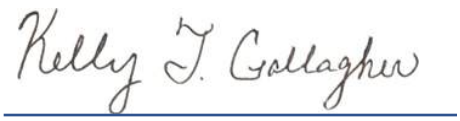


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Qualifiers

LCMS

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-231540-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 7/10/2025 9:50 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.3°C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The COC is missing Sample Preservation. This does not meet regulatory requirements.

Backup volume for 1633 method was placed in the freezer upon receipt.

PFAS
Method 537_IDA_TOPS - Post-Treatment: The recoveries for d3-NMeFOSAA, d5-NEtFOSAA, M2-4:2 FTS, M2-6:2 FTS and M2-8:2 FTS are below the QC acceptance limits in the closing continuing calibration verification standard. Since the recoveries for the labeled isotopes are within the QC acceptance limits in DC320021-WW-Out (410-231540-1), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Client Sample ID: DC320021-WW-Out
Lab Sample ID: 410-231540-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	310	J B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	840	J B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	370	J B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	260	J	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	360	J B	1000	150	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: DS0 PFAS - ACW Site #203

Job ID: 410-231540-2

Client Sample ID: DC320021-WW-Out
Date Collected: 07/08/25 08:45
Date Received: 07/10/25 09:50

Lab Sample ID: 410-231540-1
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluoropentanoic acid (PFPeA)	**310**	**J B**	1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluoroheptanoic acid (PFHpA)	**840**	**J B**	1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorooctanoic acid (PFOA)	**370**	**J B**	1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorononanoic acid (PFNA)	**260**	**J**	1000	100	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorodecanoic acid (PFDA)	**360**	**J B**	1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 05:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		10/03/25 07:57	10/12/25 05:04	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 05:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 05:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:04	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 05:04	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 05:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		10/03/25 07:57	10/12/25 05:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:04	1

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Client Sample ID: DC320021-WW-Out
Lab Sample ID: 410-231540-1
Date Collected: 07/08/25 08:45
Matrix: Water
Date Received: 07/10/25 09:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 05:04	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:04	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:04	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 05:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92*		*17 - 153*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C5 PFPeA	*119*		*19 - 178*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C5 PFHxA	*92*		*26 - 156*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C4 PFHpA	*93*		*33 - 158*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C8 PFOA	*142*		*35 - 146*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C9 PFNA	*115*		*37 - 157*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C6 PFDA	*98*		*36 - 152*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C7 PFUnA	*96*		*32 - 155*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C2-PFDoDA	*107*		*23 - 149*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C2 PFTeDA	*97*		*17 - 149*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C3 PFBS	*128*		*20 - 198*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C3 PFHxS	*110*		*35 - 165*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C8 PFOS	*107*		*41 - 155*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C8 FOSA	*83*		*20 - 142*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
d5-NEtFOSAA	*111*	*cn*	*28 - 188*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
M2-6:2 FTS	*156*	*cn*	*25 - 189*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
M2-8:2 FTS	*124*	*cn*	*28 - 192*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C3 HFPO-DA	*89*		*26 - 161*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
d7-N-MeFOSE-M	*96*		*10 - 155*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
d9-N-EtFOSE-M	*87*		*10 - 147*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
d5-NEtPFOSA	*58*		*10 - 130*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
d3-NMePFOSA	*67*		*10 - 130*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C-6:2 FTCA	*110*		*18 - 186*	*10/03/25 07:57*	*10/12/25 05:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*78*		*26 - 150*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C2 PFUnA	*84*		*11 - 187*	*10/03/25 07:57*	*10/12/25 05:04*	*1*
13C4 PFOA	*96*		*45 - 147*	*10/03/25 07:57*	*10/12/25 05:04*	*1*

Surrogate Summary

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFUnA	PFOA
Lab Sample ID	Client Sample ID			
MB 410-708636/2-B	Method Blank			

Surrogate Legend

PFHxA = 13C2 PFHxA
PFUnA = 13C2 PFUnA
PFOA = 13C4 PFOA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFUnA	PFOA
Lab Sample ID	Client Sample ID	(26-150)	(11-187)	(45-147)
410-231540-1	DC320021-WW-Out	78	84	96

Surrogate Legend

PFHxA = 13C2 PFHxA
PFUnA = 13C2 PFUnA
PFOA = 13C4 PFOA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(17-153)	(19-178)	(26-156)	(33-158)	(35-146)	(37-157)	(36-152)	(32-155)
LCS 410-708636/3-B	Lab Control Sample	91	93	93	98	127	89	89	87
LCSD 410-708636/4-B	Lab Control Sample Dup	89	91	93	102	135	92	92	89
MB 410-708636/2-B	Method Blank	89	91	86	95	126	83	85	88

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(23-149)	(17-149)	(20-198)	(35-165)	(41-155)	(20-142)		(28-188)
LCS 410-708636/3-B	Lab Control Sample	84	89	97	107	96	79		101
LCSD 410-708636/4-B	Lab Control Sample Dup	83	93	89	105	98	77		99
MB 410-708636/2-B	Method Blank	85	85	87	97	86	71		95

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA
Lab Sample ID	Client Sample ID		(25-189)	(28-192)	(26-161)	(10-155)	(10-147)	(10-130)	(10-130)
LCS 410-708636/3-B	Lab Control Sample		95	95	85	86	88	68	68
LCSD 410-708636/4-B	Lab Control Sample Dup		102	99	89	86	94	66	65
MB 410-708636/2-B	Method Blank		97	92	80	81	79	67	68

		Percent Isotope Dilution Recovery (Acceptance Limits)
		MFHEA
Lab Sample ID	Client Sample ID	(18-186)
LCS 410-708636/3-B	Lab Control Sample	116
LCSD 410-708636/4-B	Lab Control Sample Dup	125
MB 410-708636/2-B	Method Blank	108

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water
Prep Type: Post-Treatment

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(17-153)	(19-178)	(26-156)	(33-158)	(35-146)	(37-157)	(36-152)	(32-155)
410-231540-1	DC320021-WW-Out	92	119	92	93	142	115	98	96

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(23-149)	(17-149)	(20-198)	(35-165)	(41-155)	(20-142)	(28-188)	(25-189)
410-231540-1	DC320021-WW-Out	107	97	128	110	107	83	111 cn	156 cn

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA	
Lab Sample ID	Client Sample ID	(28-192)	(26-161)	(10-155)	(10-147)	(10-130)	(10-130)	(18-186)	
410-231540-1	DC320021-WW-Out	124 cn	89	96	87	58	67	110	

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-708636/2-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorodecanoic acid (PFDA)	333	J	1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 04:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		10/03/25 07:57	10/12/25 04:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		10/03/25 07:57	10/12/25 04:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-708636/2-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		10/03/25 07:57	10/12/25 04:24	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 04:24	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*89*		*17 - 153*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C5 PFPeA	*91*		*19 - 178*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C5 PFHxA	*86*		*26 - 156*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C4 PFHpA	*95*		*33 - 158*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C8 PFOA	*126*		*35 - 146*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C9 PFNA	*83*		*37 - 157*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C6 PFDA	*85*		*36 - 152*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C7 PFUnA	*88*		*32 - 155*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C2-PFDoDA	*85*		*23 - 149*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C2 PFTeDA	*85*		*17 - 149*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C3 PFBS	*87*		*20 - 198*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C3 PFHxS	*97*		*35 - 165*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C8 PFOS	*86*		*41 - 155*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C8 FOSA	*71*		*20 - 142*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d5-NEtFOSAA	*95*		*28 - 188*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
M2-6:2 FTS	*97*		*25 - 189*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
M2-8:2 FTS	*92*		*28 - 192*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C3 HFPO-DA	*80*		*26 - 161*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d7-N-MeFOSE-M	*81*		*10 - 155*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d9-N-EtFOSE-M	*79*		*10 - 147*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d5-NEtPFOSA	*67*		*10 - 130*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d3-NMePFOSA	*68*		*10 - 130*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C-6:2 FTCA	*108*		*18 - 186*	*10/03/25 07:57*	*10/12/25 04:24*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C2 PFUnA				*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C4 PFOA				*10/03/25 07:57*	*10/12/25 04:24*	*1*

Lab Sample ID: LCS 410-708636/3-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12800	14000		ng/L		110	56 - 130
Perfluoropentanoic acid (PFPeA)	12800	14100		ng/L		110	56 - 130
Perfluorohexanoic acid (PFHxA)	12800	12300		ng/L		96	54 - 130
Perfluoroheptanoic acid (PFHpA)	12800	13900		ng/L		109	57 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-708636/3-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanoic acid (PFOA)	12800	8580		ng/L		67	58 - 130
Perfluorononanoic acid (PFNA)	12800	14000		ng/L		110	61 - 130
Perfluorodecanoic acid (PFDA)	12800	14600		ng/L		114	61 - 130
Perfluoroundecanoic acid (PFUnA)	12800	14300		ng/L		112	60 - 130
Perfluorododecanoic acid (PFDoA)	12800	15200		ng/L		119	59 - 130
Perfluorotridecanoic acid (PFTrDA)	12800	16100		ng/L		126	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	12800	14500		ng/L		113	59 - 130
Perfluorobutanesulfonic acid (PFBS)	11400	12700		ng/L		111	58 - 130
Perfluoropentanesulfonic acid (PFPeS)	12000	13300		ng/L		110	55 - 130
Perfluorohexanesulfonic acid (PFHxS)	11700	11400		ng/L		98	59 - 130
Perfluoroheptanesulfonic acid (PFHpS)	12200	12000		ng/L		99	55 - 130
Perfluorooctanesulfonic acid (PFOS)	11900	11600		ng/L		98	59 - 130
Perfluorononanesulfonic acid (PFNS)	12300	12800		ng/L		104	58 - 130
Perfluorodecanesulfonic acid (PFDS)	12300	13600		ng/L		110	53 - 130
Perfluorododecanesulfonic acid (PFDoS)	12400	13600		ng/L		109	51 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	15100		ng/L		126	59 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	15300		ng/L		125	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	12100		ng/L		99	55 - 130
Perfluorooctanesulfonamide (PFOSA)	12800	13100		ng/L		103	64 - 133
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	13500		ng/L		105	59 - 148
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	13200		ng/L		103	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	13000		ng/L		102	58 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	12300		ng/L		96	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	13200		ng/L		103	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	11900		ng/L		93	61 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	10200		ng/L		80	47 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	11100		ng/L		91	57 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	16900		ng/L		132	56 - 137
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	11100		ng/L		86	49 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-708636/3-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	12400		ng/L		97	50 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	12400		ng/L		104	58 - 130		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	12500		ng/L		103	55 - 130		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	12000		ng/L		105	50 - 130		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	12600		ng/L		99	34 - 148		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	11900		ng/L		93	45 - 139		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	11200		ng/L		87	38 - 135		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*91*		*17 - 153*
13C5 PFPeA	*93*		*19 - 178*
13C5 PFHxA	*93*		*26 - 156*
13C4 PFHpA	*98*		*33 - 158*
13C8 PFOA	*127*		*35 - 146*
13C9 PFNA	*89*		*37 - 157*
13C6 PFDA	*89*		*36 - 152*
13C7 PFUnA	*87*		*32 - 155*
13C2-PFDoDA	*84*		*23 - 149*
13C2 PFTeDA	*89*		*17 - 149*
13C3 PFBS	*97*		*20 - 198*
13C3 PFHxS	*107*		*35 - 165*
13C8 PFOS	*96*		*41 - 155*
13C8 FOSA	*79*		*20 - 142*
d5-NEtFOSAA	*101*		*28 - 188*
M2-6:2 FTS	*95*		*25 - 189*
M2-8:2 FTS	*95*		*28 - 192*
13C3 HFPO-DA	*85*		*26 - 161*
d7-N-MeFOSE-M	*86*		*10 - 155*
d9-N-EtFOSE-M	*88*		*10 - 147*
d5-NEtPFOSA	*68*		*10 - 130*
d3-NMePFOSA	*68*		*10 - 130*
13C-6:2 FTCA	*116*		*18 - 186*

Lab Sample ID: LCSD 410-708636/4-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			12800	13700		ng/L		107	56 - 130	2	30
Perfluoropentanoic acid (PFPeA)			12800	13000		ng/L		102	56 - 130	8	30
Perfluorohexanoic acid (PFHxA)			12800	11900		ng/L		93	54 - 130	3	30
Perfluoroheptanoic acid (PFHpA)			12800	13100		ng/L		102	57 - 130	6	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-708636/4-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708636

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)	12800	8760		ng/L		68	58 - 130	2	30
Perfluorononanoic acid (PFNA)	12800	13700		ng/L		107	61 - 130	2	30
Perfluorodecanoic acid (PFDA)	12800	13900		ng/L		108	61 - 130	5	30
Perfluoroundecanoic acid (PFUnA)	12800	13900		ng/L		109	60 - 130	3	30
Perfluorododecanoic acid (PFDoA)	12800	15100		ng/L		118	59 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)	12800	15900		ng/L		124	56 - 130	1	30
Perfluorotetradecanoic acid (PFTeDA)	12800	13800		ng/L		108	59 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	11400	12100		ng/L		106	58 - 130	5	30
Perfluoropentanesulfonic acid (PFPeS)	12000	13100		ng/L		109	55 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	11700	11500		ng/L		98	59 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS)	12200	12000		ng/L		98	55 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	11900	11900		ng/L		100	59 - 130	2	30
Perfluorononanesulfonic acid (PFNS)	12300	12800		ng/L		104	58 - 130	0	30
Perfluorodecanesulfonic acid (PFDS)	12300	12900		ng/L		104	53 - 130	5	30
Perfluorododecanesulfonic acid (PFDoS)	12400	13300		ng/L		107	51 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	13400		ng/L		112	59 - 130	12	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	12900		ng/L		106	56 - 130	17	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	11200		ng/L		91	55 - 130	8	30
Perfluorooctanesulfonamide (PFOSA)	12800	13900		ng/L		108	64 - 133	5	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	13800		ng/L		108	59 - 148	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	12600		ng/L		99	60 - 140	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	13200		ng/L		103	58 - 130	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	12700		ng/L		99	57 - 130	3	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	12000		ng/L		94	60 - 130	9	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	11100		ng/L		87	61 - 130	7	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	9740		ng/L		76	47 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	10400		ng/L		86	57 - 130	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	13800		ng/L		108	56 - 137	20	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	11500		ng/L		90	49 - 130	4	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-708636/4-B
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 712655
Prep Batch: 708636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	12500		ng/L		97	50 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	12300		ng/L		103	58 - 130	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	12400		ng/L		103	55 - 130	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	12000		ng/L		105	50 - 130	0	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	12500		ng/L		97	34 - 148	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	11100		ng/L		87	45 - 139	7	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	10700		ng/L		83	38 - 135	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*89*		*17 - 153*
13C5 PFPeA	*91*		*19 - 178*
13C5 PFHxA	*93*		*26 - 156*
13C4 PFHpA	*102*		*33 - 158*
13C8 PFOA	*135*		*35 - 146*
13C9 PFNA	*92*		*37 - 157*
13C6 PFDA	*92*		*36 - 152*
13C7 PFUnA	*89*		*32 - 155*
13C2-PFDoDA	*83*		*23 - 149*
13C2 PFTeDA	*93*		*17 - 149*
13C3 PFBS	*89*		*20 - 198*
13C3 PFHxS	*105*		*35 - 165*
13C8 PFOS	*98*		*41 - 155*
13C8 FOSA	*77*		*20 - 142*
d5-NEtFOSAA	*99*		*28 - 188*
M2-6:2 FTS	*102*		*25 - 189*
M2-8:2 FTS	*99*		*28 - 192*
13C3 HFPO-DA	*89*		*26 - 161*
d7-N-MeFOSE-M	*86*		*10 - 155*
d9-N-EtFOSE-M	*94*		*10 - 147*
d5-NEtPFOSA	*66*		*10 - 130*
d3-NMePFOSA	*65*		*10 - 130*
13C-6:2 FTCA	*125*		*18 - 186*

QC Association Summary

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

LCMS

Prep Batch: 708636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231540-1	DC320021-WW-Out	Post-Treatment	Water	TOP Post Prep	
MB 410-708636/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-708636/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-708636/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-708636/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Cleanup Batch: 709577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231540-1	DC320021-WW-Out	Post-Treatment	Water	Extract Aliquot	708636
MB 410-708636/1-B	Method Blank	Total/NA	Water	Extract Aliquot	708636
MB 410-708636/2-B	Method Blank	Total/NA	Water	Extract Aliquot	708636
LCS 410-708636/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	708636
LCSD 410-708636/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	708636

Analysis Batch: 712655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-231540-1	DC320021-WW-Out	Post-Treatment	Water	537 TOP	709577
MB 410-708636/1-B	Method Blank	Total/NA	Water	537 TOP	709577
MB 410-708636/2-B	Method Blank	Total/NA	Water	537 TOP	709577
LCS 410-708636/3-B	Lab Control Sample	Total/NA	Water	537 TOP	709577
LCSD 410-708636/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	709577

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Client Sample ID: DC320021-WW-Out
Lab Sample ID: 410-231540-1
Date Collected: 07/08/25 08:45
Matrix: Water
Date Received: 07/10/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			708636	S7AC	ELLE	10/03/25 07:57
Post-Treatment	Cleanup	Extract Aliquot			709577	S7AC	ELLE	10/06/25 10:42
Post-Treatment	Analysis	537 TOP		1	712655	QD9Y	ELLE	10/12/25 05:04

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)
537 TOP	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Method	Method Description	Protocol	Laboratory
537 TOP	Fluorinated Alkyl Substances	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Job ID: 410-231540-2
Project/Site: DS0 PFAS - ACW Site #203

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-231540-1	DC320021-WW-Out	Water	07/08/25 08:45	07/10/25 09:50	North Carolina

Environmental Analysis Request/

410-231540 Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

| | | |

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-231540-2

Login Number: 231540

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Perez, Alexander

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Container preservation not listed on COC.
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

A CLEANER WORLD #206

920052C

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 10/16/2025 11:22:31 AM Revision 1

JOB DESCRIPTION

A Cleaner World #206 (920025C)

JOB NUMBER

410-238645-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

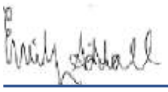
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
10/16/2025 11:22:31 AM
Revision 1

Authorized for release by
Emily Siddall, Principal Project Manager
Emily.Siddall@et.eurofinsus.com
Designee for
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

Qualifiers

LCMS

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-238645-1 — Eurofins Lancaster Laboratories Environment

Job Narrative
410-238645-1

REVISION

The report being provided is a revision of the original report sent on 10/15/2025. The report (revision 1) is being revised due to the sample name being updated per client's request via email on 10/16.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 8/22/2025 9:40 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.4°C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): 920025C_WW_Post (410-238645-1). The container labels list WW_Post, while the COC lists 920025C_WW_Post.

The Chain-of-Custody (COC) was incomplete as received. The COC is missing Sample Preservation. This does not meet regulatory requirements.

PFAS
Method 537_IDA_TOPS - Post-Treatment: The recoveries for d3-NMeFOSAA, d5-NEtFOSAA, M2-4:2 FTS, M2-6:2 FTS and M2-8:2 FTS are below the QC acceptance limits in the closing continuing calibration verification standard. Since the recoveries for the labeled isotopes are within the QC acceptance limits in 920025C_WW_Post (410-238645-1), the data are reported.

Method PFC_IDA: The recovery for labeled isotope: 13C2-6:2 FTS, d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the opening continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following sample: 920025C_WW_Post (410-238645-1), the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

Client Sample ID: 920025C_WW_Post
Lab Sample ID: 410-238645-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	320	J B	1000	250	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2100		1000	550	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206 (920025C)

Job ID: 410-238645-1

Client Sample ID: 920025C_WW_Post
Date Collected: 08/20/25 08:30
Date Received: 08/22/25 09:40

Lab Sample ID: 410-238645-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2300	1900	ng/L		09/02/25 14:38	09/08/25 17:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	460	ng/L		09/02/25 14:38	09/08/25 17:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	460	ng/L		09/02/25 14:38	09/08/25 17:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2300	460	ng/L		09/02/25 14:38	09/08/25 17:35	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	460	ng/L		09/02/25 14:38	09/08/25 17:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		930	280	ng/L		09/02/25 14:38	09/08/25 17:35	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	460	ng/L		09/02/25 14:38	09/08/25 17:35	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	460	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorobutanesulfonic acid (PFBS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorobutanoic acid (PFBA)	ND		2300	930	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorodecanesulfonic acid (PFDS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorodecanoic acid (PFDA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorododecanoic acid (PFDoA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluoroheptanoic acid (PFHpA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorohexanesulfonic acid (PFHxS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorohexanoic acid (PFHxA)	ND		930	420	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorononanesulfonic acid (PFNS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorononanoic acid (PFNA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorooctanesulfonamide (PFOSA)	ND		930	320	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorooctanesulfonic acid (PFOS)	ND		930	460	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorooctanoic acid (PFOA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluoropentanesulfonic acid (PFPeS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluoropentanoic acid (PFPeA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorotetradecanoic acid (PFTeDA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluorotridecanoic acid (PFTrDA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluoroundecanoic acid (PFUnA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1

Client Sample ID: 920025C_WW_Post
Lab Sample ID: 410-238645-1
Date Collected: 08/20/25 08:30
Matrix: Water
Date Received: 08/22/25 09:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*88*		*19 - 191*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C2-6:2 FTS	*108*	*cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C2-8:2 FTS	*98*		*10 - 200*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C2-PFTeDA	*75*		*10 - 186*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C3-HFPO-DA	*72*		*10 - 140*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C3-PFBS	*78*		*24 - 176*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C4-PFBA	*84*		*26 - 162*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C4-PFHpA	*81*		*10 - 193*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C5-PFPeA	*73*		*15 - 162*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C8-PFOA	*80*		*27 - 160*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C8-PFOS	*81*		*22 - 172*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
d3-NMeFOSAA	*97*	*cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
d5-NEtFOSAA	*81*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
d7-N-MeFOSE-M	*50*		*10 - 181*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
d9-N-EtFOSE-M	*43*		*10 - 182*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C3-PFHxS	*87*		*11 - 180*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C5-PFHxA	*74*		*10 - 176*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C6-PFDA	*75*		*19 - 168*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C7-PFUnA	*69*		*10 - 182*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
d3-NMePFOSA	*30*		*10 - 137*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
d5-NEtPFOSA	*26*		*10 - 130*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C8-PFOSA	*55*		*10 - 149*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C2-PFDoA	*60*		*10 - 183*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C9-PFNA	*82*		*10 - 198*	*09/02/25 14:38*	*09/08/25 17:35*	*1*
13C-6:2 FTCA	*83*		*10 - 185*	*09/02/25 14:38*	*09/08/25 17:35*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorodecanoic acid (PFDA)	**320**	**J B**	1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1

Client Sample ID: 920025C_WW_Post
Lab Sample ID: 410-238645-1
Date Collected: 08/20/25 08:30
Matrix: Water
Date Received: 08/22/25 09:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**2100**		1000	550	ng/L		10/03/25 07:57	10/12/25 05:18	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		10/03/25 07:57	10/12/25 05:18	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		10/03/25 07:57	10/12/25 05:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:18	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 05:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88*		*17 - 153*	*10/03/25 07:57*	*10/12/25 05:18*	*1*
13C5 PFPeA	*112*		*19 - 178*	*10/03/25 07:57*	*10/12/25 05:18*	*1*
13C5 PFHxA	*85*		*26 - 156*	*10/03/25 07:57*	*10/12/25 05:18*	*1*

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

Client Sample ID: 920025C_WW_Post
Lab Sample ID: 410-238645-1
Date Collected: 08/20/25 08:30
Matrix: Water
Date Received: 08/22/25 09:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	79		33 - 158	10/03/25 07:57	10/12/25 05:18	1
13C8 PFOA	127		35 - 146	10/03/25 07:57	10/12/25 05:18	1
13C9 PFNA	100		37 - 157	10/03/25 07:57	10/12/25 05:18	1
13C6 PFDA	94		36 - 152	10/03/25 07:57	10/12/25 05:18	1
13C7 PFUnA	94		32 - 155	10/03/25 07:57	10/12/25 05:18	1
13C2-PFDoDA	101		23 - 149	10/03/25 07:57	10/12/25 05:18	1
13C2 PFTeDA	89		17 - 149	10/03/25 07:57	10/12/25 05:18	1
13C3 PFBS	122		20 - 198	10/03/25 07:57	10/12/25 05:18	1
13C3 PFHxS	95		35 - 165	10/03/25 07:57	10/12/25 05:18	1
13C8 PFOS	97		41 - 155	10/03/25 07:57	10/12/25 05:18	1
13C8 FOSA	82		20 - 142	10/03/25 07:57	10/12/25 05:18	1
d5-NEtFOSAA	114	cn	28 - 188	10/03/25 07:57	10/12/25 05:18	1
M2-6:2 FTS	130	cn	25 - 189	10/03/25 07:57	10/12/25 05:18	1
M2-8:2 FTS	127	cn	28 - 192	10/03/25 07:57	10/12/25 05:18	1
13C3 HFPO-DA	82		26 - 161	10/03/25 07:57	10/12/25 05:18	1
d7-N-MeFOSE-M	96		10 - 155	10/03/25 07:57	10/12/25 05:18	1
d9-N-EtFOSE-M	86		10 - 147	10/03/25 07:57	10/12/25 05:18	1
d5-NEtPFOSA	60		10 - 130	10/03/25 07:57	10/12/25 05:18	1
d3-NMePFOSA	64		10 - 130	10/03/25 07:57	10/12/25 05:18	1
13C-6:2 FTCA	106		18 - 186	10/03/25 07:57	10/12/25 05:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	70		26 - 150	10/03/25 07:57	10/12/25 05:18	1
13C2 PFUnA	79		11 - 187	10/03/25 07:57	10/12/25 05:18	1
13C4 PFOA	88		45 - 147	10/03/25 07:57	10/12/25 05:18	1

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206 (920025C)

Job ID: 410-238645-1

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFUnA	PFOA
Lab Sample ID	Client Sample ID			
MB 410-708636/2-B	Method Blank			

Surrogate Legend

PFHxA = 13C2 PFHxA
PFUnA = 13C2 PFUnA
PFOA = 13C4 PFOA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFUnA	PFOA
Lab Sample ID	Client Sample ID	(26-150)	(11-187)	(45-147)
410-238645-1	920025C_WW_Post	70	79	88

Surrogate Legend

PFHxA = 13C2 PFHxA
PFUnA = 13C2 PFUnA
PFOA = 13C4 PFOA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFTDA	HFPODA	C3PFBS	PFBA	C4PFHA
Lab Sample ID	Client Sample ID	(19-191)	(13-200)	(10-200)	(10-186)	(10-140)	(24-176)	(26-162)	(10-193)
410-238645-1	920025C_WW_Post	88	108 cn	98	75	72	78	84	81
LCS 410-693534/2-B	Lab Control Sample	89	102	98	72	82	89	92	86
LCSD 410-693534/3-B	Lab Control Sample Dup	89	99	87	69	74	82	85	82
MB 410-693534/1-B	Method Blank	86	96	100	77	77	84	89	85

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFPeA	C8PFOA	C8PFOS	d3NMFOS	d5NEFOS	NMFM	NEFM	C3PFHS
Lab Sample ID	Client Sample ID	(15-162)	(27-160)	(22-172)	(10-198)	(10-200)	(10-181)	(10-182)	(11-180)
410-238645-1	920025C_WW_Post	73	80	81	97 cn	81 cn	50	43	87
LCS 410-693534/2-B	Lab Control Sample	86	89	91	92	91	52	47	97
LCSD 410-693534/3-B	Lab Control Sample Dup	81	80	84	82	85	46	39	88
MB 410-693534/1-B	Method Blank	80	88	87	88	90	47	41	93

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C5PHA	C6PFDA	13C7PUA	d3NMFSA	d5NPFSA	PFOSA	PFDoDA	C9PFNA
Lab Sample ID	Client Sample ID	(10-176)	(19-168)	(10-182)	(10-137)	(10-130)	(10-149)	(10-183)	(10-198)
410-238645-1	920025C_WW_Post	74	75	69	30	26	55	60	82
LCS 410-693534/2-B	Lab Control Sample	78	85	74	32	28	58	62	85
LCSD 410-693534/3-B	Lab Control Sample Dup	72	76	68	27	25	51	54	83
MB 410-693534/1-B	Method Blank	75	81	76	28	26	51	61	89

		Percent Isotope Dilution Recovery (Acceptance Limits)
		MFHEA
Lab Sample ID	Client Sample ID	(10-185)
410-238645-1	920025C_WW_Post	83
LCS 410-693534/2-B	Lab Control Sample	87
LCSD 410-693534/3-B	Lab Control Sample Dup	77
MB 410-693534/1-B	Method Blank	78

Surrogate Legend

M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
PFTDA = 13C2-PFTeDA
HFPODA = 13C3-HFPO-DA
C3PFBS = 13C3-PFBS
PFBA = 13C4-PFBA
C4PFHA = 13C4-PFHpA
PFPeA = 13C5-PFPeA
C8PFOA = 13C8-PFOA
C8PFOS = 13C8-PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
C3PFHS = 13C3-PFHxS
13C5PHA = 13C5-PFHxA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
PFOSA = 13C8-PFOSA

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

PFDoDA = 13C2-PFDoA
C9PFNA = 13C9-PFNA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(17-153)	(19-178)	(26-156)	(33-158)	(35-146)	(37-157)	(36-152)	(32-155)
LCS 410-708636/3-B	Lab Control Sample	91	93	93	98	127	89	89	87
LCSD 410-708636/4-B	Lab Control Sample Dup	89	91	93	102	135	92	92	89
MB 410-708636/2-B	Method Blank	89	91	86	95	126	83	85	88

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(23-149)	(17-149)	(20-198)	(35-165)	(41-155)	(20-142)		(28-188)
LCS 410-708636/3-B	Lab Control Sample	84	89	97	107	96	79		101
LCSD 410-708636/4-B	Lab Control Sample Dup	83	93	89	105	98	77		99
MB 410-708636/2-B	Method Blank	85	85	87	97	86	71		95

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA
Lab Sample ID	Client Sample ID		(25-189)	(28-192)	(26-161)	(10-155)	(10-147)	(10-130)	(10-130)
LCS 410-708636/3-B	Lab Control Sample		95	95	85	86	88	68	68
LCSD 410-708636/4-B	Lab Control Sample Dup		102	99	89	86	94	66	65
MB 410-708636/2-B	Method Blank		97	92	80	81	79	67	68

		Percent Isotope Dilution Recovery (Acceptance Limits)
		MFHEA
Lab Sample ID	Client Sample ID	(18-186)
LCS 410-708636/3-B	Lab Control Sample	116
LCSD 410-708636/4-B	Lab Control Sample Dup	125
MB 410-708636/2-B	Method Blank	108

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(17-153)	(19-178)	(26-156)	(33-158)	(35-146)	(37-157)	(36-152)	(32-155)
410-238645-1	920025C_WW_Post	88	112	85	79	127	100	94	94

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(23-149)	(17-149)	(20-198)	(35-165)	(41-155)	(20-142)	(28-188)	(25-189)
410-238645-1	920025C_WW_Post	101	89	122	95	97	82	114 cn	130 cn

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA	
Lab Sample ID	Client Sample ID	(28-192)	(26-161)	(10-155)	(10-147)	(10-130)	(10-130)	(18-186)	
410-238645-1	920025C_WW_Post	127 cn	82	96	86	60	64	106	

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-693534/1-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 693534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		09/02/25 14:38	09/08/25 14:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-693534/1-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 693534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*86*		*19 - 191*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C2-6:2 FTS	*96*		*13 - 200*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C2-8:2 FTS	*100*		*10 - 200*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C2-PFTeDA	*77*		*10 - 186*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C3-HFPO-DA	*77*		*10 - 140*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C3-PFBS	*84*		*24 - 176*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C4-PFBA	*89*		*26 - 162*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C4-PFHpA	*85*		*10 - 193*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C5-PFPeA	*80*		*15 - 162*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C8-PFOA	*88*		*27 - 160*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C8-PFOS	*87*		*22 - 172*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d3-NMeFOSAA	*88*		*10 - 198*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d5-NEtFOSAA	*90*		*10 - 200*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d7-N-MeFOSE-M	*47*		*10 - 181*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d9-N-EtFOSE-M	*41*		*10 - 182*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C3-PFHxS	*93*		*11 - 180*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C5-PFHxA	*75*		*10 - 176*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C6-PFDA	*81*		*19 - 168*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C7-PFUnA	*76*		*10 - 182*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d3-NMePFOSA	*28*		*10 - 137*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d5-NEtPFOSA	*26*		*10 - 130*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C8-PFOSA	*51*		*10 - 149*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C2-PFDoA	*61*		*10 - 183*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C9-PFNA	*89*		*10 - 198*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C-6:2 FTCA	*78*		*10 - 185*	*09/02/25 14:38*	*09/08/25 14:12*	*1*

Lab Sample ID: LCS 410-693534/2-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 693534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4200		ng/L		70	61 - 131
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5820		ng/L		97	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	5490		ng/L		90	58 - 136

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-693534/2-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 693534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	5410		ng/L		88	57 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	4640		ng/L		78	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	5260		ng/L		87	55 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	5040		ng/L		79	50 - 137
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	5370		ng/L		84	53 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	5740		ng/L		90	59 - 137
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	5930		ng/L		93	59 - 135
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	5450		ng/L		85	54 - 131
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	5900		ng/L		92	61 - 134
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	5540		ng/L		87	58 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	5470		ng/L		96	56 - 130
Perfluorobutanoic acid (PFBA)	6400	5830		ng/L		91	54 - 144
Perfluorodecanesulfonic acid (PFDS)	6170	4190		ng/L		68	63 - 130
Perfluorodecanoic acid (PFDA)	6400	5920		ng/L		93	61 - 135
Perfluorododecanesulfonic acid (PFDoS)	6210	4240		ng/L		68	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	6720		ng/L		105	60 - 133
Perfluoroheptanesulfonic acid (PFHpS)	6110	5230		ng/L		86	51 - 132
Perfluoroheptanoic acid (PFHpA)	6400	6160		ng/L		96	54 - 133
Perfluorohexanesulfonic acid (PFHxS)	5840	4870		ng/L		83	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	5690		ng/L		89	55 - 132
Perfluorononanesulfonic acid (PFNS)	6160	4910		ng/L		80	65 - 136
Perfluorononanoic acid (PFNA)	6400	6100		ng/L		95	50 - 140
Perfluorooctanesulfonamide (PFOSA)	6400	6290		ng/L		98	62 - 136
Perfluorooctanesulfonic acid (PFOS)	5950	5240		ng/L		88	37 - 149
Perfluorooctanoic acid (PFOA)	6400	5450		ng/L		85	60 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	5190		ng/L		86	59 - 130
Perfluoropentanoic acid (PFPeA)	6400	6080		ng/L		95	59 - 133
Perfluorotetradecanoic acid (PFTeDA)	6400	6060		ng/L		95	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	6210		ng/L		97	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	5850		ng/L		91	58 - 133

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-693534/2-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 693534

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4920		ng/L		86	34 - 134		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	4990		ng/L		78	10 - 155		
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5430		ng/L		85	53 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	3500		ng/L		55	10 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	5510		ng/L		86	46 - 133		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	4130		ng/L		65	14 - 142		
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	4980		ng/L		78	52 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2-4:2 FTS	*89*		*19 - 191*
13C2-6:2 FTS	*102*		*13 - 200*
13C2-8:2 FTS	*98*		*10 - 200*
13C2-PFTeDA	*72*		*10 - 186*
13C3-HFPO-DA	*82*		*10 - 140*
13C3-PFBS	*89*		*24 - 176*
13C4-PFBA	*92*		*26 - 162*
13C4-PFHpA	*86*		*10 - 193*
13C5-PFPeA	*86*		*15 - 162*
13C8-PFOA	*89*		*27 - 160*
13C8-PFOS	*91*		*22 - 172*
d3-NMeFOSAA	*92*		*10 - 198*
d5-NEtFOSAA	*91*		*10 - 200*
d7-N-MeFOSE-M	*52*		*10 - 181*
d9-N-EtFOSE-M	*47*		*10 - 182*
13C3-PFHxS	*97*		*11 - 180*
13C5-PFHxA	*78*		*10 - 176*
13C6-PFDA	*85*		*19 - 168*
13C7-PFUnA	*74*		*10 - 182*
d3-NMePFOSA	*32*		*10 - 137*
d5-NEtPFOSA	*28*		*10 - 130*
13C8-PFOSA	*58*		*10 - 149*
13C2-PFDoA	*62*		*10 - 183*
13C9-PFNA	*85*		*10 - 198*
13C-6:2 FTCA	*87*		*10 - 185*

Lab Sample ID: LCSD 410-693534/3-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 693534

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	4720		ng/L		78	61 - 131	12	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-693534/3-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 693534

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			6000	5280		ng/L		88	57 - 130	10	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			6090	5770		ng/L		95	58 - 136	5	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			6140	5580		ng/L		91	57 - 134	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	5120		ng/L		86	59 - 130	10	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)			6050	5250		ng/L		87	55 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			6400	5620		ng/L		88	50 - 137	11	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			6400	5280		ng/L		83	53 - 130	2	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			6400	6060		ng/L		95	59 - 137	5	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			6400	5630		ng/L		88	59 - 135	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			6400	5620		ng/L		88	54 - 131	3	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			6400	5960		ng/L		93	61 - 134	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			6400	5640		ng/L		88	58 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)			5680	5540		ng/L		97	56 - 130	1	30
Perfluorobutanoic acid (PFBA)			6400	6200		ng/L		97	54 - 144	6	30
Perfluorodecanesulfonic acid (PFDS)			6170	4500		ng/L		73	63 - 130	7	30
Perfluorodecanoic acid (PFDA)			6400	6490		ng/L		101	61 - 135	9	30
Perfluorododecanesulfonic acid (PFDoS)			6210	4980		ng/L		80	59 - 130	16	30
Perfluorododecanoic acid (PFDoA)			6400	6720		ng/L		105	60 - 133	0	30
Perfluoroheptanesulfonic acid (PFHpS)			6110	5700		ng/L		93	51 - 132	8	30
Perfluoroheptanoic acid (PFHpA)			6400	6480		ng/L		101	54 - 133	5	30
Perfluorohexanesulfonic acid (PFHxS)			5840	5140		ng/L		88	56 - 130	5	30
Perfluorohexanoic acid (PFHxA)			6400	6170		ng/L		96	55 - 132	8	30
Perfluorononanesulfonic acid (PFNS)			6160	5130		ng/L		83	65 - 136	4	30
Perfluorononanoic acid (PFNA)			6400	6150		ng/L		96	50 - 140	1	30
Perfluorooctanesulfonamide (PFOSA)			6400	6580		ng/L		103	62 - 136	4	30
Perfluorooctanesulfonic acid (PFOS)			5950	5400		ng/L		91	37 - 149	3	30
Perfluorooctanoic acid (PFOA)			6400	5830		ng/L		91	60 - 130	7	30
Perfluoropentanesulfonic acid (PFPeS)			6020	5620		ng/L		93	59 - 130	8	30
Perfluoropentanoic acid (PFPeA)			6400	6090		ng/L		95	59 - 133	0	30
Perfluorotetradecanoic acid (PFTeDA)			6400	6340		ng/L		99	62 - 130	5	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-693534/3-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 693534

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorotridecanoic acid (PFTrDA)			6400	7310		ng/L		114	53 - 133	16	30
Perfluoroundecanoic acid (PFUnA)			6400	5970		ng/L		93	58 - 133	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	5060		ng/L		89	34 - 134	3	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5030		ng/L		79	10 - 155	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5830		ng/L		91	53 - 135	7	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	3780		ng/L		59	10 - 150	7	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	5950		ng/L		93	46 - 133	8	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	4260		ng/L		67	14 - 142	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	5370		ng/L		84	52 - 130	7	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2-4:2 FTS	*89*		*19 - 191*
13C2-6:2 FTS	*99*		*13 - 200*
13C2-8:2 FTS	*87*		*10 - 200*
13C2-PFTeDA	*69*		*10 - 186*
13C3-HFPO-DA	*74*		*10 - 140*
13C3-PFBS	*82*		*24 - 176*
13C4-PFBA	*85*		*26 - 162*
13C4-PFHpA	*82*		*10 - 193*
13C5-PFPeA	*81*		*15 - 162*
13C8-PFOA	*80*		*27 - 160*
13C8-PFOS	*84*		*22 - 172*
d3-NMeFOSAA	*82*		*10 - 198*
d5-NEtFOSAA	*85*		*10 - 200*
d7-N-MeFOSE-M	*46*		*10 - 181*
d9-N-EtFOSE-M	*39*		*10 - 182*
13C3-PFHxS	*88*		*11 - 180*
13C5-PFHxA	*72*		*10 - 176*
13C6-PFDA	*76*		*19 - 168*
13C7-PFUnA	*68*		*10 - 182*
d3-NMePFOSA	*27*		*10 - 137*
d5-NEtPFOSA	*25*		*10 - 130*
13C8-PFOSA	*51*		*10 - 149*
13C2-PFDoA	*54*		*10 - 183*
13C9-PFNA	*83*		*10 - 198*
13C-6:2 FTCA	*77*		*10 - 185*

Method: 537 TOP - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-708636/2-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorodecanoic acid (PFDA)	333	J	1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 04:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		10/03/25 07:57	10/12/25 04:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-708636/2-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 04:24	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*89*		*17 - 153*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C5 PFPeA	*91*		*19 - 178*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C5 PFHxA	*86*		*26 - 156*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C4 PFHpA	*95*		*33 - 158*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C8 PFOA	*126*		*35 - 146*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C9 PFNA	*83*		*37 - 157*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C6 PFDA	*85*		*36 - 152*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C7 PFUnA	*88*		*32 - 155*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C2-PFDoDA	*85*		*23 - 149*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C2 PFTeDA	*85*		*17 - 149*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C3 PFBS	*87*		*20 - 198*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C3 PFHxS	*97*		*35 - 165*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C8 PFOS	*86*		*41 - 155*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C8 FOSA	*71*		*20 - 142*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d5-NEtFOSAA	*95*		*28 - 188*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
M2-6:2 FTS	*97*		*25 - 189*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
M2-8:2 FTS	*92*		*28 - 192*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C3 HFPO-DA	*80*		*26 - 161*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d7-N-MeFOSE-M	*81*		*10 - 155*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d9-N-EtFOSE-M	*79*		*10 - 147*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d5-NEtPFOSA	*67*		*10 - 130*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d3-NMePFOSA	*68*		*10 - 130*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C-6:2 FTCA	*108*		*18 - 186*	*10/03/25 07:57*	*10/12/25 04:24*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C2 PFUnA				*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C4 PFOA				*10/03/25 07:57*	*10/12/25 04:24*	*1*

Lab Sample ID: LCS 410-708636/3-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12800	14000		ng/L		110	56 - 130
Perfluoropentanoic acid (PFPeA)	12800	14100		ng/L		110	56 - 130
Perfluorohexanoic acid (PFHxA)	12800	12300		ng/L		96	54 - 130
Perfluoroheptanoic acid (PFHpA)	12800	13900		ng/L		109	57 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-708636/3-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanoic acid (PFOA)	12800	8580		ng/L		67	58 - 130
Perfluorononanoic acid (PFNA)	12800	14000		ng/L		110	61 - 130
Perfluorodecanoic acid (PFDA)	12800	14600		ng/L		114	61 - 130
Perfluoroundecanoic acid (PFUnA)	12800	14300		ng/L		112	60 - 130
Perfluorododecanoic acid (PFDoA)	12800	15200		ng/L		119	59 - 130
Perfluorotridecanoic acid (PFTrDA)	12800	16100		ng/L		126	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	12800	14500		ng/L		113	59 - 130
Perfluorobutanesulfonic acid (PFBS)	11400	12700		ng/L		111	58 - 130
Perfluoropentanesulfonic acid (PFPeS)	12000	13300		ng/L		110	55 - 130
Perfluorohexanesulfonic acid (PFHxS)	11700	11400		ng/L		98	59 - 130
Perfluoroheptanesulfonic acid (PFHpS)	12200	12000		ng/L		99	55 - 130
Perfluorooctanesulfonic acid (PFOS)	11900	11600		ng/L		98	59 - 130
Perfluorononanesulfonic acid (PFNS)	12300	12800		ng/L		104	58 - 130
Perfluorodecanesulfonic acid (PFDS)	12300	13600		ng/L		110	53 - 130
Perfluorododecanesulfonic acid (PFDoS)	12400	13600		ng/L		109	51 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	15100		ng/L		126	59 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	15300		ng/L		125	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	12100		ng/L		99	55 - 130
Perfluorooctanesulfonamide (PFOSA)	12800	13100		ng/L		103	64 - 133
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	13500		ng/L		105	59 - 148
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	13200		ng/L		103	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	13000		ng/L		102	58 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	12300		ng/L		96	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	13200		ng/L		103	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	11900		ng/L		93	61 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	10200		ng/L		80	47 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	11100		ng/L		91	57 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	16900		ng/L		132	56 - 137
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	11100		ng/L		86	49 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-708636/3-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	12400		ng/L		97	50 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	12400		ng/L		104	58 - 130		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	12500		ng/L		103	55 - 130		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	12000		ng/L		105	50 - 130		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	12600		ng/L		99	34 - 148		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	11900		ng/L		93	45 - 139		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	11200		ng/L		87	38 - 135		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*91*		*17 - 153*
13C5 PFPeA	*93*		*19 - 178*
13C5 PFHxA	*93*		*26 - 156*
13C4 PFHpA	*98*		*33 - 158*
13C8 PFOA	*127*		*35 - 146*
13C9 PFNA	*89*		*37 - 157*
13C6 PFDA	*89*		*36 - 152*
13C7 PFUnA	*87*		*32 - 155*
13C2-PFDoDA	*84*		*23 - 149*
13C2 PFTeDA	*89*		*17 - 149*
13C3 PFBS	*97*		*20 - 198*
13C3 PFHxS	*107*		*35 - 165*
13C8 PFOS	*96*		*41 - 155*
13C8 FOSA	*79*		*20 - 142*
d5-NEtFOSAA	*101*		*28 - 188*
M2-6:2 FTS	*95*		*25 - 189*
M2-8:2 FTS	*95*		*28 - 192*
13C3 HFPO-DA	*85*		*26 - 161*
d7-N-MeFOSE-M	*86*		*10 - 155*
d9-N-EtFOSE-M	*88*		*10 - 147*
d5-NEtPFOSA	*68*		*10 - 130*
d3-NMePFOSA	*68*		*10 - 130*
13C-6:2 FTCA	*116*		*18 - 186*

Lab Sample ID: LCSD 410-708636/4-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			12800	13700		ng/L		107	56 - 130	2	30
Perfluoropentanoic acid (PFPeA)			12800	13000		ng/L		102	56 - 130	8	30
Perfluorohexanoic acid (PFHxA)			12800	11900		ng/L		93	54 - 130	3	30
Perfluoroheptanoic acid (PFHpA)			12800	13100		ng/L		102	57 - 130	6	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-708636/4-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708636

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)	12800	8760		ng/L		68	58 - 130	2	30
Perfluorononanoic acid (PFNA)	12800	13700		ng/L		107	61 - 130	2	30
Perfluorodecanoic acid (PFDA)	12800	13900		ng/L		108	61 - 130	5	30
Perfluoroundecanoic acid (PFUnA)	12800	13900		ng/L		109	60 - 130	3	30
Perfluorododecanoic acid (PFDoA)	12800	15100		ng/L		118	59 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)	12800	15900		ng/L		124	56 - 130	1	30
Perfluorotetradecanoic acid (PFTeDA)	12800	13800		ng/L		108	59 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	11400	12100		ng/L		106	58 - 130	5	30
Perfluoropentanesulfonic acid (PFPeS)	12000	13100		ng/L		109	55 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	11700	11500		ng/L		98	59 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS)	12200	12000		ng/L		98	55 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	11900	11900		ng/L		100	59 - 130	2	30
Perfluorononanesulfonic acid (PFNS)	12300	12800		ng/L		104	58 - 130	0	30
Perfluorodecanesulfonic acid (PFDS)	12300	12900		ng/L		104	53 - 130	5	30
Perfluorododecanesulfonic acid (PFDoS)	12400	13300		ng/L		107	51 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	13400		ng/L		112	59 - 130	12	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	12900		ng/L		106	56 - 130	17	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	11200		ng/L		91	55 - 130	8	30
Perfluorooctanesulfonamide (PFOSA)	12800	13900		ng/L		108	64 - 133	5	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	13800		ng/L		108	59 - 148	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	12600		ng/L		99	60 - 140	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	13200		ng/L		103	58 - 130	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	12700		ng/L		99	57 - 130	3	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	12000		ng/L		94	60 - 130	9	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	11100		ng/L		87	61 - 130	7	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	9740		ng/L		76	47 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	10400		ng/L		86	57 - 130	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	13800		ng/L		108	56 - 137	20	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	11500		ng/L		90	49 - 130	4	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-708636/4-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	12500		ng/L		97	50 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	12300		ng/L		103	58 - 130	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	12400		ng/L		103	55 - 130	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	12000		ng/L		105	50 - 130	0	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	12500		ng/L		97	34 - 148	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	11100		ng/L		87	45 - 139	7	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	10700		ng/L		83	38 - 135	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*89*		*17 - 153*
13C5 PFPeA	*91*		*19 - 178*
13C5 PFHxA	*93*		*26 - 156*
13C4 PFHpA	*102*		*33 - 158*
13C8 PFOA	*135*		*35 - 146*
13C9 PFNA	*92*		*37 - 157*
13C6 PFDA	*92*		*36 - 152*
13C7 PFUnA	*89*		*32 - 155*
13C2-PFDoDA	*83*		*23 - 149*
13C2 PFTeDA	*93*		*17 - 149*
13C3 PFBS	*89*		*20 - 198*
13C3 PFHxS	*105*		*35 - 165*
13C8 PFOS	*98*		*41 - 155*
13C8 FOSA	*77*		*20 - 142*
d5-NEtFOSAA	*99*		*28 - 188*
M2-6:2 FTS	*102*		*25 - 189*
M2-8:2 FTS	*99*		*28 - 192*
13C3 HFPO-DA	*89*		*26 - 161*
d7-N-MeFOSE-M	*86*		*10 - 155*
d9-N-EtFOSE-M	*94*		*10 - 147*
d5-NEtPFOSA	*66*		*10 - 130*
d3-NMePFOSA	*65*		*10 - 130*
13C-6:2 FTCA	*125*		*18 - 186*

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206 (920025C)

Job ID: 410-238645-1

LCMS

Prep Batch: 693534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-238645-1	920025C_WW_Post	Total/NA	Water	EPA 537 (Mod)	
MB 410-693534/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-693534/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-693534/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 694861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-238645-1	920025C_WW_Post	Total/NA	Water	Extract Aliquot	693534
MB 410-693534/1-B	Method Blank	Total/NA	Water	Extract Aliquot	693534
LCS 410-693534/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	693534
LCSD 410-693534/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	693534

Analysis Batch: 696066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-238645-1	920025C_WW_Post	Total/NA	Water	537 IDA	694861
MB 410-693534/1-B	Method Blank	Total/NA	Water	537 IDA	694861
LCS 410-693534/2-B	Lab Control Sample	Total/NA	Water	537 IDA	694861
LCSD 410-693534/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	694861

Prep Batch: 708636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-238645-1	920025C_WW_Post	Post-Treatment	Water	TOP Post Prep	
MB 410-708636/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-708636/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-708636/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-708636/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Cleanup Batch: 709577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-238645-1	920025C_WW_Post	Post-Treatment	Water	Extract Aliquot	708636
MB 410-708636/1-B	Method Blank	Total/NA	Water	Extract Aliquot	708636
MB 410-708636/2-B	Method Blank	Total/NA	Water	Extract Aliquot	708636
LCS 410-708636/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	708636
LCSD 410-708636/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	708636

Analysis Batch: 712655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-238645-1	920025C_WW_Post	Post-Treatment	Water	537 TOP	709577
MB 410-708636/1-B	Method Blank	Total/NA	Water	537 TOP	709577
MB 410-708636/2-B	Method Blank	Total/NA	Water	537 TOP	709577
LCS 410-708636/3-B	Lab Control Sample	Total/NA	Water	537 TOP	709577
LCSD 410-708636/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	709577

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

Client Sample ID: 920025C_WW_Post
Lab Sample ID: 410-238645-1

Date Collected: 08/20/25 08:30
Matrix: Water
Date Received: 08/22/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 17:35
Post-Treatment	Prep	TOP Post Prep			708636	S7AC	ELLE	10/03/25 07:57
Post-Treatment	Cleanup	Extract Aliquot			709577	S7AC	ELLE	10/06/25 10:42
Post-Treatment	Analysis	537 TOP		1	712655	QD9Y	ELLE	10/12/25 05:18

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	EPA 537 (Mod)	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	EPA 537 (Mod)	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	EPA 537 (Mod)	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid (PFBS)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid (PFBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid (PFDS)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid (PFDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid (PFDoA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid (PFHpA)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid (PFHxA)

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid (PFNS)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid (PFNA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide (PFOSA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid (PFOS)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid (PFOA)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid (PFPeA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid (PFTrDA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid (PFUnA)
537 TOP	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-238645-1
Project/Site: A Cleaner World #206 (920025C)

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 TOP	Fluorinated Alkyl Substances	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206 (920025C)

Job ID: 410-238645-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-238645-1	920025C_WW_Post	Water	08/20/25 08:30	08/22/25 09:40	North Carolina

410-238645 Chain of Custody

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: NWS / CAP	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No:
Client Contact: Mandy Klaben	Phone: 586-457-0233	E-Mail: Kelly.Gallagher@et.eurofins.com	State of Origin: NC	Page: 1 of 1
Company: Hart Hickman, PC	PWSID:	Analysis Requested		Job #: DSO. PFAS
Address: 3921 Sunset Ridge Rd Ste301	Due Date Requested: Standard HH			Preservation Codes:
City: Raleigh	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NC, 27607	Compliance Project: Δ Yes Δ No			
Phone: (919) 847-4241	PO #: DSO. PFAS			Other:
Email: MKlaben@harthickman.com	WO #:			
Project Name: A Cleaner World #206(DC290025)	Project #:			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537 Mod	TOPs (Post) 537											Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
DC290025_WW-Post	8/20/25	0830	G	W	N	N	X	X											5	* Report J-Flags and report on <MDL ^ EDD formats HH, NC DEQ, DSCA • TOPS on hold pending HH request

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Nicole Stone	8/20/25 1230	HH	Brent Rader	8/21/25 1338	Eurofins
2	Brent Rader	8/21/25 1645	[illegible]			
3					8/22/25 0940	NWS

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		Not Frozen R11.4 C:0.4

NJ

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-238645-1

Login Number: 238645
List Number: 1
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	Not present.
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 1/29/2026 12:04:15 PM Revision 3

JOB DESCRIPTION

A Cleaner World #206

JOB NUMBER

410-236614-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
1/29/2026 12:04:15 PM
Revision 3

Authorized for release by
David Barnhart, Senior Project Manager
David.Barnhart@et.eurofinsus.com
(717)656-2300

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-236614-1 — Eurofins Lancaster Laboratories Environment

Job Narrative
410-236614-1

REVISION

The report being provided is a revision of the original report sent on 8/27/2025. The report (revision 3) is being revised due to: an udpate to include sample 920025C_EB (410-236614-9) to the case narrative note related to method blank detection.

Report revision history
Revision 1 - 10/14/2025 - Reason - method 537 Mod was on the COC but analysis was not completed initially.

Revision 2 - 10/16/2025 - Reason - the sample names being updated per the client's request via email on 10/16.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 8/8/2025 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received. The COC is missing the number of containers per sample. This does not meet regulatory requirements.

PFAS
Method 537_IDA_TOPS - Post-Treatment: The recovery for labeled isotope: d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS is outside the QC acceptance limits in the closing continuing calibration verification standard due to the matrix of the sample.

Method 537_IDA_TOPS - Post-Treatment: The recovery for target analyte 3-Perfluoroheptylpropanoic acid (7:3 FTCA) is outside the QC acceptance limits in the opening and closing continuing calibration verification standard. Since the result is high and target is not detected in the following samples: 920025C-WW-Pre (410-236614-1) and 920025C-DET-2 (410-236614-6), the data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope: M2-6:2 FTS and M2-8:2 FTS in the following sample: 920025C-DET-2 (410-236614-6) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for labeled isotope: d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS is outside the QC acceptance limits in the opening and closing continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following samples: 920025C-FB (410-236614-10) and 920025C-DUP (410-236614-11), the data is reported.

Method 537_IDA_TOPS - Post-Treatment: Target analyte(s) Perfluorodecanoic acid (PFDA) were detected in the method blank associated with the following samples: 920025C-WW-Pre (410-236614-1), 920025C-DET-2 (410-236614-6), 920025C-FB (410-236614-10) and 920025C-DUP (410-236614-11). The data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for labeled isotope: d3-NMeFOSAA, d5-NEtFOSAA and M2-4:2 FTS is outside the QC acceptance limits in the closing continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following samples: 920025C-SPOT (410-236614-2), 920025C-Mist-Post (410-236614-3), 920025C-Mist-Pre (410-236614-4), 920025C-DET-1 (410-236614-5), 920025C-ADD-1 (410-236614-7) and 920025C-ADD-2

(410-236614-8), the data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope: M2-6:2 FTS and M2-8:2 FTS in the following samples: 920025C-SPOT (410-236614-2) and 920025C-Mist-Post (410-236614-3) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope: 13C3 PFBS, M2-6:2 FTS and M2-8:2 FTS in the following samples: 920025C-Mist-Pre (410-236614-4) and 920025C-DET-1 (410-236614-5) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope: 13C3 PFBS and M2-6:2 FTS in the following sample: 920025C-ADD-1 (410-236614-7) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope: M2-6:2 FTS, M2-8:2 FTS and d9-N-EtFOSE-M in the following sample: 920025C-ADD-2 (410-236614-8) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method 537_IDA_TOPS - Post-Treatment: Isotope dilution analyte (IDA) 13C2 PFTeDA recoveries were outside QC acceptance criteria in sample 920025C-ADD-1 (410-236614-7). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method 537_IDA_TOPS - Post-Treatment: The sample injection standard peak areas in the following samples: 920025C-SPOT (410-236614-2), 920025C-Mist-Post (410-236614-3), 920025C-Mist-Pre (410-236614-4), 920025C-DET-1 (410-236614-5), 920025C-ADD-1 (410-236614-7) and 920025C-ADD-2 (410-236614-8) are outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Method 537_IDA_TOPS - Post-Treatment: Target analyte(s) Perfluorodecanoic acid (PFDA) were detected in the method blank associated with the following samples: 920025C-SPOT (410-236614-2), 920025C-Mist-Post (410-236614-3), 920025C-Mist-Pre (410-236614-4), 920025C-DET-1 (410-236614-5), 920025C-ADD-1 (410-236614-7) and 920025C-ADD-2 (410-236614-8). The data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for target analyte 3-Perfluoroheptylpropanoic acid (7:3 FTCA) is outside the QC acceptance limits in the opening continuing calibration verification standard. Since the result is high and target is not detected in the following sample: 920025C-EB (410-236614-9), the data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for labeled isotope: M2-8:2 FTS is outside the QC acceptance limits in the opening continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following sample: 920025C-EB (410-236614-9), the data is reported.

Method 537_IDA_TOPS - Post-Treatment: The recovery for labeled isotope: d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the opening and closing continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following sample: 920025C-EB (410-236614-9), the data is reported.

Method 537_IDA_TOPS - Post-Treatment: Target analyte(s) Perfluorodecanoic acid (PFDA) were detected in the method blank associated with the following sample: 920025C-EB (410-236614-9). The data is reported.

Method PFC_IDA: The recovery for labeled isotope: 13C2-6:2 FTS, d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the opening and closing continuing calibration verification standard due to matrix of the sample.

Method PFC_IDA: The recovery for labeled isotope: 13C2-6:2 FTS, d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the opening continuing calibration verification standard due to matrix of the sample.

Method PFC_IDA: The recovery for the labeled isotope: 13C8-PFOS in the following sample: 920025C-WW-Pre (410-236614-1) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method PFC_IDA: The recovery for the labeled isotope: 13C2-4:2 FTS, 13C2-6:2 FTS and 13C2-8:2 FTS in the following sample: 920025C-SPOT (410-236614-2) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not

detected in the sample, the data is reported.

Method PFC_IDA: The recovery for the labeled isotope: 13C2-6:2 FTS in the following sample: 920025C-DET-2 (410-236614-6) is outside the QC acceptance limits due to the matrix of the sample.

Method PFC_IDA: The recovery for labeled isotope: 13C2-6:2 FTS, d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the closing continuing calibration verification standard, biased high. Since the recovery for the labeled isotope is within QC limits in the following samples: 920025C-WW-Pre (410-236614-1), 920025C-Mist-Post (410-236614-3) and 920025C-Mist-Pre (410-236614-4), the data is reported.

Method PFC_IDA: The recovery for labeled isotope: d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the opening and closing continuing calibration verification standard, biased high. Since the recovery for the labeled isotope is within QC limits in the following sample: 920025C-SPOT (410-236614-2), the data is reported.

Method PFC_IDA: The recovery for labeled isotope: 13C2-6:2 FTS, d3-NMeFOSAA and d5-NEtFOSAA is outside the QC acceptance limits in the opening continuing calibration verification standard, biased high. Since the recovery for the labeled isotope is within QC limits in the following samples: 920025C-ADD-1 (410-236614-7), 920025C-ADD-2 (410-236614-8), 920025C-EB (410-236614-9), 920025C-FB (410-236614-10) and 920025C-DUP (410-236614-11), the data is reported.

Method PFC_IDA: The recovery for the labeled isotope(s) 13C2-4:2 FTS, 13C2-6:2 FTS, 13C3-HFPO-DA, 13C4-PFHpA, d3-NMeFOSAA, d5-NEtFOSAA, 13C3-PFHxS, 13C5-PFHxA and 13C-6:2 FTCA in the following sample: 920025C-DET-1 (410-236614-5) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method PFC_IDA: The recovery for the labeled isotope(s) 13C2-8:2 FTS in the following sample: 920025C-ADD-2 (410-236614-8) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method PFC_IDA: The sample injection standard peak areas in the following sample: 920025C-ADD-2 (410-236614-8). is outside the QC acceptance limits. The following action was taken: This sample was re-injected within the required holding time and the sample injection standard peak areas was within QC acceptance limits. However, the recovery for the labeled isotope(s) in the re-injected sample is outside QC acceptance limits. The values here are from the initial injection of the sample.

Method PFC_IDA: The sample injection standard peak areas in the following sample: 920025C-DET-1 (410-236614-5) are outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Method PFC_IDA: Isotope dilution analyte (IDA) 13C2-PFTeDA recoveries were outside QC acceptance criteria in sample 920025C-DET-1 (410-236614-5). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: The recovery for the labeled isotopes(s) 13C2-4:2 FTS, 13C2-PFTeDA, d7-N-MeFOSE-M, d3-NMePFOSA and 13C2-PFDoA in the following sample: 920025C-ADD-1 (410-236614-7) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted outside the required holding time and the recovery for the labeled isotope(s) in the sample(s) is again outside the QC acceptance limits.

Method PFC_IDA: Isotope dilution analyte (IDA) 13C8-PFOS, 13C6-PFDA and 13C7-PFUnA recoveries were outside QC acceptance criteria in sample 920025C-ADD-1 (410-236614-7). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-WW-Pre — Lab Sample ID: 410-236614-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	960	J	1500	500	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid (PFDA)	290	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: 920025C-SPOT — Lab Sample ID: 410-236614-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	410	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: 920025C-Mist-Post — Lab Sample ID: 410-236614-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2400		1500	500	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid (PFDA)	270	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: 920025C-Mist-Pre — Lab Sample ID: 410-236614-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	320	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	660	J cn	1000	550	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: 920025C-DET-1 — Lab Sample ID: 410-236614-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	300	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: 920025C-DET-2 — Lab Sample ID: 410-236614-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	4300		2400	2000	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid (PFDA)	300	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: 920025C-ADD-1 — Lab Sample ID: 410-236614-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	450	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: 920025C-ADD-2 — Lab Sample ID: 410-236614-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	480	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	17000	cn	1000	250	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-EB — Lab Sample ID: 410-236614-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	850	J	1400	480	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	270	J	1000	250	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	2300	I	1000	250	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	320	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: 920025C-FB — Lab Sample ID: 410-236614-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	280	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: 920025C-DUP — Lab Sample ID: 410-236614-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	270	J B	1000	250	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	360	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-WW-Pre
Date Collected: 08/06/25 14:10
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		09/02/25 14:38	09/08/25 14:52	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**960**	**J**	1500	500	ng/L		09/02/25 14:38	09/08/25 14:52	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		09/02/25 14:38	09/08/25 14:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		09/02/25 14:38	09/08/25 14:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:52	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1

Client Sample ID: 920025C-WW-Pre
Date Collected: 08/06/25 14:10
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*92*		*19 - 191*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C2-6:2 FTS	*113*	*cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C2-8:2 FTS	*119*		*10 - 200*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C2-PFTeDA	*86*		*10 - 186*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C3-HFPO-DA	*77*		*10 - 140*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C3-PFBS	*85*		*24 - 176*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C4-PFBA	*93*		*26 - 162*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C4-PFHpA	*92*		*10 - 193*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C5-PFPeA	*82*		*15 - 162*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C8-PFOA	*93*		*27 - 160*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C8-PFOS	*178*	**5+ cn*	*22 - 172*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
d3-NMeFOSAA	*114*	*cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
d5-NEtFOSAA	*99*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
d7-N-MeFOSE-M	*59*		*10 - 181*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
d9-N-EtFOSE-M	*55*		*10 - 182*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C3-PFHxS	*97*		*11 - 180*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C5-PFHxA	*81*		*10 - 176*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C6-PFDA	*82*		*19 - 168*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C7-PFUnA	*85*		*10 - 182*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
d3-NMePFOSA	*34*		*10 - 137*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
d5-NEtPFOSA	*32*		*10 - 130*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C8-PFOSA	*64*		*10 - 149*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C2-PFDoA	*70*		*10 - 183*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C9-PFNA	*181*		*10 - 198*	*09/02/25 14:38*	*09/08/25 14:52*	*1*
13C-6:2 FTCA	*82*		*10 - 185*	*09/02/25 14:38*	*09/08/25 14:52*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorodecanoic acid (PFDA)	**290**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1

Client Sample ID: 920025C-WW-Pre

Date Collected: 08/06/25 14:10
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-1

Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		08/15/25 06:46	08/23/25 12:00	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/15/25 06:46	08/23/25 12:00	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/15/25 06:46	08/23/25 12:00	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 12:00	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/23/25 12:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77*		*10 - 168*	*08/15/25 06:46*	*08/23/25 12:00*	*1*
13C5 PFPeA	*91*		*15 - 189*	*08/15/25 06:46*	*08/23/25 12:00*	*1*
13C5 PFHxA	*69*		*20 - 165*	*08/15/25 06:46*	*08/23/25 12:00*	*1*

Client Sample ID: 920025C-WW-Pre

Date Collected: 08/06/25 14:10
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-1
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	69		33 - 166	08/15/25 06:46	08/23/25 12:00	1
13C8 PFOA	104		40 - 154	08/15/25 06:46	08/23/25 12:00	1
13C9 PFNA	84		39 - 162	08/15/25 06:46	08/23/25 12:00	1
13C6 PFDA	88		41 - 153	08/15/25 06:46	08/23/25 12:00	1
13C7 PFUnA	83		35 - 161	08/15/25 06:46	08/23/25 12:00	1
13C2-PFDoDA	78		22 - 165	08/15/25 06:46	08/23/25 12:00	1
13C2 PFTeDA	75		17 - 156	08/15/25 06:46	08/23/25 12:00	1
13C3 PFBS	105		27 - 200	08/15/25 06:46	08/23/25 12:00	1
13C3 PFHxS	83		39 - 164	08/15/25 06:46	08/23/25 12:00	1
13C8 PFOS	81		44 - 153	08/15/25 06:46	08/23/25 12:00	1
13C8 FOSA	62		11 - 149	08/15/25 06:46	08/23/25 12:00	1
d5-NEtFOSAA	115	cn	30 - 180	08/15/25 06:46	08/23/25 12:00	1
M2-6:2 FTS	164		26 - 200	08/15/25 06:46	08/23/25 12:00	1
M2-8:2 FTS	169	cn	27 - 200	08/15/25 06:46	08/23/25 12:00	1
13C3 HFPO-DA	85		11 - 166	08/15/25 06:46	08/23/25 12:00	1
d7-N-MeFOSE-M	56		10 - 154	08/15/25 06:46	08/23/25 12:00	1
d9-N-EtFOSE-M	60		10 - 146	08/15/25 06:46	08/23/25 12:00	1
d5-NEtPFOSA	44		10 - 130	08/15/25 06:46	08/23/25 12:00	1
d3-NMePFOSA	45		10 - 130	08/15/25 06:46	08/23/25 12:00	1
13C-6:2 FTCA	73		15 - 182	08/15/25 06:46	08/23/25 12:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	79		26 - 150	08/15/25 06:46	08/23/25 12:00	1
13C4 PFOA	80		45 - 147	08/15/25 06:46	08/23/25 12:00	1
13C2 PFUnA	88		11 - 187	08/15/25 06:46	08/23/25 12:00	1

Client Sample ID: 920025C-SPOT

Date Collected: 08/06/25 14:25
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-2
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		09/02/25 14:38	09/08/25 15:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 15:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 15:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		09/02/25 14:38	09/08/25 15:06	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 15:06	1

Client Sample ID: 920025C-SPOT
Date Collected: 08/06/25 14:25
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-2
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		960	290	ng/L		09/02/25 14:38	09/08/25 15:06	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 15:06	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorobutanesulfonic acid (PFBS)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorobutanoic acid (PFBA)	ND		2400	960	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorodecanoic acid (PFDA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorododecanoic acid (PFDoA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluoroheptanoic acid (PFHpA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorohexanesulfonic acid (PFHxS)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorohexanoic acid (PFHxA)	ND		960	430	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorononanesulfonic acid (PFNS)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorononanoic acid (PFNA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		960	340	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorooctanesulfonic acid (PFOS)	ND		960	480	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorooctanoic acid (PFOA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluoropentanesulfonic acid (PFPeS)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluoropentanoic acid (PFPeA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorotetradecanoic acid (PFTeDA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluorotridecanoic acid (PFTrDA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluoroundecanoic acid (PFUnA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		960	240	ng/L		09/02/25 14:38	09/08/25 15:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*491*	**5+ cn*	*19 - 191*	*09/02/25 14:38*	*09/08/25 15:06*	*1*
13C2-6:2 FTS	*495*	**5+ cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 15:06*	*1*
13C2-8:2 FTS	*316*	**5+ cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 15:06*	*1*
13C2-PFTeDA	*60*		*10 - 186*	*09/02/25 14:38*	*09/08/25 15:06*	*1*
13C3-HFPO-DA	*88*		*10 - 140*	*09/02/25 14:38*	*09/08/25 15:06*	*1*
13C3-PFBS	*94*		*24 - 176*	*09/02/25 14:38*	*09/08/25 15:06*	*1*
13C4-PFBA	*86*		*26 - 162*	*09/02/25 14:38*	*09/08/25 15:06*	*1*
13C4-PFHpA	*88*		*10 - 193*	*09/02/25 14:38*	*09/08/25 15:06*	*1*

Client Sample ID: 920025C-SPOT

Date Collected: 08/06/25 14:25
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-2

Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5-PFPeA	82		15 - 162	09/02/25 14:38	09/08/25 15:06	1
13C8-PFOA	77		27 - 160	09/02/25 14:38	09/08/25 15:06	1
13C8-PFOS	88		22 - 172	09/02/25 14:38	09/08/25 15:06	1
d3-NMeFOSAA	116	cn	10 - 198	09/02/25 14:38	09/08/25 15:06	1
d5-NEtFOSAA	105	cn	10 - 200	09/02/25 14:38	09/08/25 15:06	1
d7-N-MeFOSE-M	53		10 - 181	09/02/25 14:38	09/08/25 15:06	1
d9-N-EtFOSE-M	52		10 - 182	09/02/25 14:38	09/08/25 15:06	1
13C3-PFHxS	103		11 - 180	09/02/25 14:38	09/08/25 15:06	1
13C5-PFHxA	91		10 - 176	09/02/25 14:38	09/08/25 15:06	1
13C6-PFDA	69		19 - 168	09/02/25 14:38	09/08/25 15:06	1
13C7-PFUnA	48		10 - 182	09/02/25 14:38	09/08/25 15:06	1
d3-NMePFOSA	70		10 - 137	09/02/25 14:38	09/08/25 15:06	1
d5-NEtPFOSA	59		10 - 130	09/02/25 14:38	09/08/25 15:06	1
13C8-PFOSA	49		10 - 149	09/02/25 14:38	09/08/25 15:06	1
13C2-PFDoA	55		10 - 183	09/02/25 14:38	09/08/25 15:06	1
13C9-PFNA	94		10 - 198	09/02/25 14:38	09/08/25 15:06	1
13C-6:2 FTCA	180		10 - 185	09/02/25 14:38	09/08/25 15:06	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorodecanoic acid (PFDA)	**410**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 10:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		08/15/25 06:46	08/27/25 10:05	1

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-SPOT
Date Collected: 08/06/25 14:25
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-2
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		08/15/25 06:46	08/27/25 10:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:05	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 10:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*55*	*cn*	*10 - 168*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C5 PFPeA	*65*	*cn*	*15 - 189*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C5 PFHxA	*47*	*cn*	*20 - 165*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C4 PFHpA	*59*	*cn*	*33 - 166*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C8 PFOA	*97*	*cn*	*40 - 154*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C9 PFNA	*65*	*cn*	*39 - 162*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C6 PFDA	*77*	*cn*	*41 - 153*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C7 PFUnA	*82*	*cn*	*35 - 161*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C2-PFDoDA	*90*	*cn*	*22 - 165*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C2 PFTeDA	*76*	*cn*	*17 - 156*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C3 PFBS	*172*	*cn*	*27 - 200*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C3 PFHxS	*98*	*cn*	*39 - 164*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C8 PFOS	*77*	*cn*	*44 - 153*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C8 FOSA	*39*	*cn*	*11 - 149*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
d5-NEtFOSAA	*102*	*cn*	*30 - 180*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
M2-6:2 FTS	*479*	**5+ cn*	*26 - 200*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
M2-8:2 FTS	*419*	**5+ cn*	*27 - 200*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
13C3 HFPO-DA	*49*	*cn*	*11 - 166*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
d7-N-MeFOSE-M	*37*	*cn*	*10 - 154*	*08/15/25 06:46*	*08/27/25 10:05*	*1*
d9-N-EtFOSE-M	*26*	*cn*	*10 - 146*	*08/15/25 06:46*	*08/27/25 10:05*	*1*

Client Sample ID: 920025C-SPOT

Lab Sample ID: 410-236614-2

Date Collected: 08/06/25 14:25

Matrix: Water

Date Received: 08/08/25 09:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	18	cn	10 - 130	08/15/25 06:46	08/27/25 10:05	1
d3-NMePFOSA	46	cn	10 - 130	08/15/25 06:46	08/27/25 10:05	1
13C-6:2 FTCA	49	cn	15 - 182	08/15/25 06:46	08/27/25 10:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	51	cn	26 - 150	08/15/25 06:46	08/27/25 10:05	1
13C4 PFOA	72	cn	45 - 147	08/15/25 06:46	08/27/25 10:05	1
13C2 PFUnA	73	cn	11 - 187	08/15/25 06:46	08/27/25 10:05	1

Client Sample ID: 920025C-Mist-Post

Lab Sample ID: 410-236614-3

Date Collected: 08/06/25 14:44

Matrix: Water

Date Received: 08/08/25 09:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		09/02/25 14:38	09/08/25 15:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**2400**		1500	500	ng/L		09/02/25 14:38	09/08/25 15:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 15:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		09/02/25 14:38	09/08/25 15:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 15:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		990	300	ng/L		09/02/25 14:38	09/08/25 15:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 15:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorobutanoic acid (PFBA)	ND		2500	990	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorodecanoic acid (PFDA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorododecanoic acid (PFDoA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluoroheptanoic acid (PFHpA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorohexanoic acid (PFHxA)	ND		990	450	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorononanesulfonic acid (PFNS)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-Mist-Post
Date Collected: 08/06/25 14:44
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-3
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		990	350	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		990	500	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorooctanoic acid (PFOA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluoropentanoic acid (PFPeA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluoroundecanoic acid (PFUnA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		990	250	ng/L		09/02/25 14:38	09/08/25 15:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*137*		*19 - 191*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C2-6:2 FTS	*139*	*cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C2-8:2 FTS	*134*		*10 - 200*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C2-PFTeDA	*98*		*10 - 186*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C3-HFPO-DA	*74*		*10 - 140*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C3-PFBS	*86*		*24 - 176*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C4-PFBA	*88*		*26 - 162*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C4-PFHpA	*85*		*10 - 193*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C5-PFPeA	*86*		*15 - 162*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C8-PFOA	*84*		*27 - 160*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C8-PFOS	*85*		*22 - 172*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
d3-NMeFOSAA	*127*	*cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
d5-NEtFOSAA	*133*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
d7-N-MeFOSE-M	*60*		*10 - 181*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
d9-N-EtFOSE-M	*54*		*10 - 182*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C3-PFHxS	*90*		*11 - 180*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C5-PFHxA	*77*		*10 - 176*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C6-PFDA	*81*		*19 - 168*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C7-PFUnA	*84*		*10 - 182*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
d3-NMePFOSA	*36*		*10 - 137*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
d5-NEtPFOSA	*35*		*10 - 130*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C8-PFOSA	*67*		*10 - 149*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C2-PFDoA	*66*		*10 - 183*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C9-PFNA	*95*		*10 - 198*	*09/02/25 14:38*	*09/08/25 15:20*	*1*
13C-6:2 FTCA	*92*		*10 - 185*	*09/02/25 14:38*	*09/08/25 15:20*	*1*

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-Mist-Post
Date Collected: 08/06/25 14:44
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-3
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorodecanoic acid (PFDA)	**270**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 10:18	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		08/15/25 06:46	08/27/25 10:18	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		08/15/25 06:46	08/27/25 10:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1

Client Sample ID: 920025C-Mist-Post

Lab Sample ID: 410-236614-3

Date Collected: 08/06/25 14:44

Matrix: Water

Date Received: 08/08/25 09:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:18	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 10:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*75*	*cn*	*10 - 168*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C5 PFPeA	*102*	*cn*	*15 - 189*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C5 PFHxA	*75*	*cn*	*20 - 165*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C4 PFHpA	*76*	*cn*	*33 - 166*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C8 PFOA	*104*	*cn*	*40 - 154*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C9 PFNA	*73*	*cn*	*39 - 162*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C6 PFDA	*83*	*cn*	*41 - 153*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C7 PFUnA	*88*	*cn*	*35 - 161*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C2-PFDoDA	*78*	*cn*	*22 - 165*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C2 PFTeDA	*78*	*cn*	*17 - 156*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C3 PFBS	*153*	*cn*	*27 - 200*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C3 PFHxS	*84*	*cn*	*39 - 164*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C8 PFOS	*78*	*cn*	*44 - 153*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C8 FOSA	*52*	*cn*	*11 - 149*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
d5-NEtFOSAA	*129*	*cn*	*30 - 180*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
M2-6:2 FTS	*224*	**5+ cn*	*26 - 200*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
M2-8:2 FTS	*234*	**5+ cn*	*27 - 200*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C3 HFPO-DA	*78*	*cn*	*11 - 166*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
d7-N-MeFOSE-M	*46*	*cn*	*10 - 154*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
d9-N-EtFOSE-M	*46*	*cn*	*10 - 146*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
d5-NEtPFOSA	*34*	*cn*	*10 - 130*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
d3-NMePFOSA	*36*	*cn*	*10 - 130*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C-6:2 FTCA	*60*	*cn*	*15 - 182*	*08/15/25 06:46*	*08/27/25 10:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*80*	*cn*	*26 - 150*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C4 PFOA	*81*	*cn*	*45 - 147*	*08/15/25 06:46*	*08/27/25 10:18*	*1*
13C2 PFUnA	*96*	*cn*	*11 - 187*	*08/15/25 06:46*	*08/27/25 10:18*	*1*

Client Sample ID: 920025C-Mist-Pre

Lab Sample ID: 410-236614-4

Date Collected: 08/06/25 14:50

Matrix: Water

Date Received: 08/08/25 09:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		09/02/25 14:38	09/08/25 15:33	1

Client Sample ID: 920025C-Mist-Pre
Date Collected: 08/06/25 14:50
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-4
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 15:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 15:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	490	ng/L		09/02/25 14:38	09/08/25 15:33	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 15:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		970	290	ng/L		09/02/25 14:38	09/08/25 15:33	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 15:33	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorobutanesulfonic acid (PFBS)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorobutanoic acid (PFBA)	ND		2400	970	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorodecanesulfonic acid (PFDS)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorodecanoic acid (PFDA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorododecanoic acid (PFDoA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluoroheptanoic acid (PFHpA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorohexanesulfonic acid (PFHxS)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorohexanoic acid (PFHxA)	ND		970	440	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorononanesulfonic acid (PFNS)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorononanoic acid (PFNA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorooctanesulfonamide (PFOSA)	ND		970	340	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorooctanesulfonic acid (PFOS)	ND		970	490	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorooctanoic acid (PFOA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluoropentanesulfonic acid (PFPeS)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluoropentanoic acid (PFPeA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorotetradecanoic acid (PFTeDA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluorotridecanoic acid (PFTrDA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluoroundecanoic acid (PFUnA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1

Client Sample ID: 920025C-Mist-Pre

Date Collected: 08/06/25 14:50
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-4

Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		970	240	ng/L		09/02/25 14:38	09/08/25 15:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*142*		*19 - 191*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C2-6:2 FTS	*150*	*cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C2-8:2 FTS	*120*		*10 - 200*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C2-PFTeDA	*88*		*10 - 186*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C3-HFPO-DA	*79*		*10 - 140*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C3-PFBS	*86*		*24 - 176*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C4-PFBA	*91*		*26 - 162*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C4-PFHpA	*90*		*10 - 193*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C5-PFPeA	*86*		*15 - 162*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C8-PFOA	*91*		*27 - 160*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C8-PFOS	*90*		*22 - 172*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
d3-NMeFOSAA	*104*	*cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
d5-NEtFOSAA	*101*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
d7-N-MeFOSE-M	*58*		*10 - 181*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
d9-N-EtFOSE-M	*49*		*10 - 182*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C3-PFHxS	*94*		*11 - 180*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C5-PFHxA	*85*		*10 - 176*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C6-PFDA	*83*		*19 - 168*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C7-PFUnA	*71*		*10 - 182*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
d3-NMePFOSA	*37*		*10 - 137*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
d5-NEtPFOSA	*30*		*10 - 130*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C8-PFOSA	*60*		*10 - 149*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C2-PFDoA	*66*		*10 - 183*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C9-PFNA	*98*		*10 - 198*	*09/02/25 14:38*	*09/08/25 15:33*	*1*
13C-6:2 FTCA	*96*		*10 - 185*	*09/02/25 14:38*	*09/08/25 15:33*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorodecanoic acid (PFDA)	**320**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1

Client Sample ID: 920025C-Mist-Pre
Date Collected: 08/06/25 14:50
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-4
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**660**	**J cn**	1000	550	ng/L		08/15/25 06:46	08/27/25 10:32	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		08/15/25 06:46	08/27/25 10:32	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		08/15/25 06:46	08/27/25 10:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:32	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 10:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*71*	*cn*	*10 - 168*	*08/15/25 06:46*	*08/27/25 10:32*	*1*
13C5 PFPeA	*119*	*cn*	*15 - 189*	*08/15/25 06:46*	*08/27/25 10:32*	*1*
13C5 PFHxA	*65*	*cn*	*20 - 165*	*08/15/25 06:46*	*08/27/25 10:32*	*1*
13C4 PFHpA	*71*	*cn*	*33 - 166*	*08/15/25 06:46*	*08/27/25 10:32*	*1*
13C8 PFOA	*103*	*cn*	*40 - 154*	*08/15/25 06:46*	*08/27/25 10:32*	*1*
13C9 PFNA	*70*	*cn*	*39 - 162*	*08/15/25 06:46*	*08/27/25 10:32*	*1*
13C6 PFDA	*80*	*cn*	*41 - 153*	*08/15/25 06:46*	*08/27/25 10:32*	*1*

Client Sample ID: 920025C-Mist-Pre

Lab Sample ID: 410-236614-4

Date Collected: 08/06/25 14:50

Matrix: Water

Date Received: 08/08/25 09:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C7 PFUnA	86	cn	35 - 161	08/15/25 06:46	08/27/25 10:32	1
13C2-PFDoDA	82	cn	22 - 165	08/15/25 06:46	08/27/25 10:32	1
13C2 PFTeDA	83	cn	17 - 156	08/15/25 06:46	08/27/25 10:32	1
13C3 PFBS	205	*5+ cn	27 - 200	08/15/25 06:46	08/27/25 10:32	1
13C3 PFHxS	79	cn	39 - 164	08/15/25 06:46	08/27/25 10:32	1
13C8 PFOS	78	cn	44 - 153	08/15/25 06:46	08/27/25 10:32	1
13C8 FOSA	50	cn	11 - 149	08/15/25 06:46	08/27/25 10:32	1
d5-NEtFOSAA	128	cn	30 - 180	08/15/25 06:46	08/27/25 10:32	1
M2-6:2 FTS	276	*5+ cn	26 - 200	08/15/25 06:46	08/27/25 10:32	1
M2-8:2 FTS	209	*5+ cn	27 - 200	08/15/25 06:46	08/27/25 10:32	1
13C3 HFPO-DA	59	cn	11 - 166	08/15/25 06:46	08/27/25 10:32	1
d7-N-MeFOSE-M	46	cn	10 - 154	08/15/25 06:46	08/27/25 10:32	1
d9-N-EtFOSE-M	47	cn	10 - 146	08/15/25 06:46	08/27/25 10:32	1
d5-NEtPFOSA	39	cn	10 - 130	08/15/25 06:46	08/27/25 10:32	1
d3-NMePFOSA	38	cn	10 - 130	08/15/25 06:46	08/27/25 10:32	1
13C-6:2 FTCA	48	cn	15 - 182	08/15/25 06:46	08/27/25 10:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	74	cn	26 - 150	08/15/25 06:46	08/27/25 10:32	1
13C4 PFOA	80	cn	45 - 147	08/15/25 06:46	08/27/25 10:32	1
13C2 PFUnA	97	cn	11 - 187	08/15/25 06:46	08/27/25 10:32	1

Client Sample ID: 920025C-DET-1

Lab Sample ID: 410-236614-5

Date Collected: 08/06/25 14:55

Matrix: Water

Date Received: 08/08/25 09:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	2500	2100	ng/L		09/02/25 14:38	09/08/25 15:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1500	500	ng/L		09/02/25 14:38	09/08/25 15:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1500	500	ng/L		09/02/25 14:38	09/08/25 15:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1500	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	2500	500	ng/L		09/02/25 14:38	09/08/25 15:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1500	500	ng/L		09/02/25 14:38	09/08/25 15:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	990	300	ng/L		09/02/25 14:38	09/08/25 15:47	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1500	500	ng/L		09/02/25 14:38	09/08/25 15:47	1

Client Sample ID: 920025C-DET-1
Date Collected: 08/06/25 14:55
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-5
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1500	500	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorobutanoic acid (PFBA)	ND	cn	2500	990	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorodecanoic acid (PFDA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1500	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorododecanoic acid (PFDoA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorohexanoic acid (PFHxA)	ND	cn	990	450	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorononanoic acid (PFNA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	990	350	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	990	500	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorooctanoic acid (PFOA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluoropentanoic acid (PFPeA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	990	250	ng/L		09/02/25 14:38	09/08/25 15:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*2877*	**5+ cn*	*19 - 191*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C2-6:2 FTS	*298*	**5+ cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C2-8:2 FTS	*180*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C2-PFTeDA	*5*	**5- cn*	*10 - 186*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C3-HFPO-DA	*779*	**5+ cn*	*10 - 140*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C3-PFBS	*71*	*cn*	*24 - 176*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C4-PFBA	*90*	*cn*	*26 - 162*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C4-PFHpA	*308*	**5+ cn*	*10 - 193*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C5-PFPeA	*84*	*cn*	*15 - 162*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C8-PFOA	*80*	*cn*	*27 - 160*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
13C8-PFOS	*94*	*cn*	*22 - 172*	*09/02/25 14:38*	*09/08/25 15:47*	*1*
d3-NMeFOSAA	*236*	**5+ cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 15:47*	*1*

Client Sample ID: 920025C-DET-1
Date Collected: 08/06/25 14:55
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-5
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	241	*5+ cn	10 - 200	09/02/25 14:38	09/08/25 15:47	1
d7-N-MeFOSE-M	29	cn	10 - 181	09/02/25 14:38	09/08/25 15:47	1
d9-N-EtFOSE-M	19	cn	10 - 182	09/02/25 14:38	09/08/25 15:47	1
13C3-PFHxS	386	*5+ cn	11 - 180	09/02/25 14:38	09/08/25 15:47	1
13C5-PFHxA	687	*5+ cn	10 - 176	09/02/25 14:38	09/08/25 15:47	1
13C6-PFDA	91	cn	19 - 168	09/02/25 14:38	09/08/25 15:47	1
13C7-PFUnA	110	cn	10 - 182	09/02/25 14:38	09/08/25 15:47	1
d3-NMePFOSA	27	cn	10 - 137	09/02/25 14:38	09/08/25 15:47	1
d5-NEtPFOSA	22	cn	10 - 130	09/02/25 14:38	09/08/25 15:47	1
13C8-PFOSA	25	cn	10 - 149	09/02/25 14:38	09/08/25 15:47	1
13C2-PFDoA	63	cn	10 - 183	09/02/25 14:38	09/08/25 15:47	1
13C9-PFNA	103	cn	10 - 198	09/02/25 14:38	09/08/25 15:47	1
13C-6:2 FTCA	988	*5+ cn	10 - 185	09/02/25 14:38	09/08/25 15:47	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorodecanoic acid (PFDA)	**300**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 10:46	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		08/15/25 06:46	08/27/25 10:46	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1

Client Sample ID: 920025C-DET-1
Date Collected: 08/06/25 14:55
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-5
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		08/15/25 06:46	08/27/25 10:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:46	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 10:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*61*	*cn*	*10 - 168*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C5 PFPeA	*111*	*cn*	*15 - 189*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C5 PFHxA	*87*	*cn*	*20 - 165*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C4 PFHpA	*87*	*cn*	*33 - 166*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C8 PFOA	*93*	*cn*	*40 - 154*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C9 PFNA	*62*	*cn*	*39 - 162*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C6 PFDA	*69*	*cn*	*41 - 153*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C7 PFUnA	*82*	*cn*	*35 - 161*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C2-PFDoDA	*75*	*cn*	*22 - 165*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C2 PFTeDA	*65*	*cn*	*17 - 156*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C3 PFBS	*273*	**5+ cn*	*27 - 200*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C3 PFHxS	*142*	*cn*	*39 - 164*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C8 PFOS	*66*	*cn*	*44 - 153*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C8 FOSA	*42*	*cn*	*11 - 149*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
d5-NEtFOSAA	*138*	*cn*	*30 - 180*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
M2-6:2 FTS	*293*	**5+ cn*	*26 - 200*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
M2-8:2 FTS	*330*	**5+ cn*	*27 - 200*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C3 HFPO-DA	*77*	*cn*	*11 - 166*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
d7-N-MeFOSE-M	*58*	*cn*	*10 - 154*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
d9-N-EtFOSE-M	*51*	*cn*	*10 - 146*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
d5-NEtPFOSA	*65*	*cn*	*10 - 130*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
d3-NMePFOSA	*64*	*cn*	*10 - 130*	*08/15/25 06:46*	*08/27/25 10:46*	*1*
13C-6:2 FTCA	*73*	*cn*	*15 - 182*	*08/15/25 06:46*	*08/27/25 10:46*	*1*

Client Sample ID: 920025C-DET-1

Lab Sample ID: 410-236614-5

Date Collected: 08/06/25 14:55

Matrix: Water

Date Received: 08/08/25 09:40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	98	cn	26 - 150	08/15/25 06:46	08/27/25 10:46	1
13C4 PFOA	74	cn	45 - 147	08/15/25 06:46	08/27/25 10:46	1
13C2 PFUnA	102	cn	11 - 187	08/15/25 06:46	08/27/25 10:46	1

Client Sample ID: 920025C-DET-2

Lab Sample ID: 410-236614-6

Date Collected: 08/06/25 15:00

Matrix: Water

Date Received: 08/08/25 09:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**4300**		2400	2000	ng/L		09/02/25 14:38	09/08/25 16:00	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		09/02/25 14:38	09/08/25 16:00	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		950	290	ng/L		09/02/25 14:38	09/08/25 16:00	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:00	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorobutanoic acid (PFBA)	ND		2400	950	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorodecanoic acid (PFDA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorododecanoic acid (PFDoA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluoroheptanoic acid (PFHpA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorohexanoic acid (PFHxA)	ND		950	430	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorononanesulfonic acid (PFNS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorononanoic acid (PFNA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorooctanesulfonamide (PFOSA)	ND		950	330	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		950	480	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorooctanoic acid (PFOA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1

Client Sample ID: 920025C-DET-2
Date Collected: 08/06/25 15:00
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-6
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluoropentanoic acid (PFPeA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorotetradecanoic acid (PFTeDA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluorotridecanoic acid (PFTrDA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluoroundecanoic acid (PFUnA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*194*	**5+*	*19 - 191*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C2-6:2 FTS	*231*	**5+ cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C2-8:2 FTS	*119*		*10 - 200*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C2-PFTeDA	*80*		*10 - 186*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C3-HFPO-DA	*77*		*10 - 140*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C3-PFBS	*81*		*24 - 176*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C4-PFBA	*82*		*26 - 162*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C4-PFHpA	*90*		*10 - 193*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C5-PFPeA	*82*		*15 - 162*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C8-PFOA	*83*		*27 - 160*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C8-PFOS	*89*		*22 - 172*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
d3-NMeFOSAA	*116*	*cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
d5-NEtFOSAA	*149*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
d7-N-MeFOSE-M	*76*		*10 - 181*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
d9-N-EtFOSE-M	*55*		*10 - 182*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C3-PFHxS	*104*		*11 - 180*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C5-PFHxA	*92*		*10 - 176*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C6-PFDA	*86*		*19 - 168*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C7-PFUnA	*80*		*10 - 182*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
d3-NMePFOSA	*58*		*10 - 137*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
d5-NEtPFOSA	*47*		*10 - 130*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C8-PFOSA	*68*		*10 - 149*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C2-PFDoA	*81*		*10 - 183*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C9-PFNA	*88*		*10 - 198*	*09/02/25 14:38*	*09/08/25 16:00*	*1*
13C-6:2 FTCA	*85*		*10 - 185*	*09/02/25 14:38*	*09/08/25 16:00*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-DET-2
Date Collected: 08/06/25 15:00
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-6
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorodecanoic acid (PFDA)	**300**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		08/15/25 06:46	08/23/25 13:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/15/25 06:46	08/23/25 13:08	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/15/25 06:46	08/23/25 13:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1

Client Sample ID: 920025C-DET-2

Date Collected: 08/06/25 15:00
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-6

Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 13:08	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/23/25 13:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77*		*10 - 168*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C5 PFPeA	*84*		*15 - 189*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C5 PFHxA	*82*		*20 - 165*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C4 PFHpA	*80*		*33 - 166*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C8 PFOA	*101*		*40 - 154*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C9 PFNA	*75*		*39 - 162*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C6 PFDA	*83*		*41 - 153*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C7 PFUnA	*91*		*35 - 161*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C2-PFDoDA	*84*		*22 - 165*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C2 PFTeDA	*89*		*17 - 156*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C3 PFBS	*107*		*27 - 200*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C3 PFHxS	*87*		*39 - 164*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C8 PFOS	*79*		*44 - 153*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C8 FOSA	*60*		*11 - 149*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
d5-NEtFOSAA	*125*	*cn*	*30 - 180*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
M2-6:2 FTS	*231*	**5+ cn*	*26 - 200*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
M2-8:2 FTS	*226*	**5+ cn*	*27 - 200*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C3 HFPO-DA	*86*		*11 - 166*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
d7-N-MeFOSE-M	*60*		*10 - 154*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
d9-N-EtFOSE-M	*65*		*10 - 146*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
d5-NEtPFOSA	*58*		*10 - 130*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
d3-NMePFOSA	*56*		*10 - 130*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C-6:2 FTCA	*64*		*15 - 182*	*08/15/25 06:46*	*08/23/25 13:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*94*		*26 - 150*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C4 PFOA	*78*		*45 - 147*	*08/15/25 06:46*	*08/23/25 13:08*	*1*
13C2 PFUnA	*100*		*11 - 187*	*08/15/25 06:46*	*08/23/25 13:08*	*1*

Client Sample ID: 920025C-ADD-1

Date Collected: 08/06/25 15:15
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-7

Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		09/02/25 14:38	09/08/25 16:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:27	1

Client Sample ID: 920025C-ADD-1
Date Collected: 08/06/25 15:15
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-7
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		09/02/25 14:38	09/08/25 16:27	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		950	290	ng/L		09/02/25 14:38	09/08/25 16:27	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:27	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorobutanesulfonic acid (PFBS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorobutanoic acid (PFBA)	ND		2400	950	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorodecanesulfonic acid (PFDS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorodecanoic acid (PFDA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorododecanoic acid (PFDoA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluoroheptanoic acid (PFHpA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorohexanesulfonic acid (PFHxS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorohexanoic acid (PFHxA)	ND		950	430	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorononanesulfonic acid (PFNS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorononanoic acid (PFNA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorooctanesulfonamide (PFOSA)	ND		950	330	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorooctanesulfonic acid (PFOS)	ND		950	480	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorooctanoic acid (PFOA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluoropentanesulfonic acid (PFPeS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluoropentanoic acid (PFPeA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorotetradecanoic acid (PFTeDA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluorotridecanoic acid (PFTrDA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluoroundecanoic acid (PFUnA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1

Client Sample ID: 920025C-ADD-1

Date Collected: 08/06/25 15:15
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-7

Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*332*	**5+ cn*	*19 - 191*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C2-6:2 FTS	*114*	*cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C2-8:2 FTS	*26*		*10 - 200*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C2-PFTeDA	*0.9*	**5- cn*	*10 - 186*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C3-HFPO-DA	*83*		*10 - 140*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C3-PFBS	*69*		*24 - 176*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C4-PFBA	*86*		*26 - 162*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C4-PFHpA	*27*		*10 - 193*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C5-PFPeA	*85*		*15 - 162*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C8-PFOA	*48*		*27 - 160*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C8-PFOS	*12*	**5- cn*	*22 - 172*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
d3-NMeFOSAA	*40*	*cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
d5-NEtFOSAA	*22*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
d7-N-MeFOSE-M	*6*	**5- cn*	*10 - 181*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
d9-N-EtFOSE-M	*20*		*10 - 182*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C3-PFHxS	*15*		*11 - 180*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C5-PFHxA	*92*		*10 - 176*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C6-PFDA	*16*	**5- cn*	*19 - 168*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C7-PFUnA	*8*	**5- cn*	*10 - 182*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
d3-NMePFOSA	*9*	**5- cn*	*10 - 137*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
d5-NEtPFOSA	*23*		*10 - 130*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C8-PFOSA	*29*		*10 - 149*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C2-PFDoA	*2*	**5- cn*	*10 - 183*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C9-PFNA	*27*		*10 - 198*	*09/02/25 14:38*	*09/08/25 16:27*	*1*
13C-6:2 FTCA	*88*		*10 - 185*	*09/02/25 14:38*	*09/08/25 16:27*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorodecanoic acid (PFDA)	**450**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1

Client Sample ID: 920025C-ADD-1
Date Collected: 08/06/25 15:15
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-7
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 10:59	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		08/15/25 06:46	08/27/25 10:59	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		08/15/25 06:46	08/27/25 10:59	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 10:59	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 10:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*62*	*cn*	*10 - 168*	*08/15/25 06:46*	*08/27/25 10:59*	*1*
13C5 PFPeA	*119*	*cn*	*15 - 189*	*08/15/25 06:46*	*08/27/25 10:59*	*1*
13C5 PFHxA	*62*	*cn*	*20 - 165*	*08/15/25 06:46*	*08/27/25 10:59*	*1*
13C4 PFHpA	*65*	*cn*	*33 - 166*	*08/15/25 06:46*	*08/27/25 10:59*	*1*
13C8 PFOA	*77*	*cn*	*40 - 154*	*08/15/25 06:46*	*08/27/25 10:59*	*1*
13C9 PFNA	*51*	*cn*	*39 - 162*	*08/15/25 06:46*	*08/27/25 10:59*	*1*
13C6 PFDA	*52*	*cn*	*41 - 153*	*08/15/25 06:46*	*08/27/25 10:59*	*1*
13C7 PFUnA	*60*	*cn*	*35 - 161*	*08/15/25 06:46*	*08/27/25 10:59*	*1*
13C2-PFDoDA	*26*	*cn*	*22 - 165*	*08/15/25 06:46*	*08/27/25 10:59*	*1*

Client Sample ID: 920025C-ADD-1
Lab Sample ID: 410-236614-7
Date Collected: 08/06/25 15:15
Matrix: Water
Date Received: 08/08/25 09:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	15	*5- cn	17 - 156	08/15/25 06:46	08/27/25 10:59	1
13C3 PFBS	253	*5+ cn	27 - 200	08/15/25 06:46	08/27/25 10:59	1
13C3 PFHxS	80	cn	39 - 164	08/15/25 06:46	08/27/25 10:59	1
13C8 PFOS	50	cn	44 - 153	08/15/25 06:46	08/27/25 10:59	1
13C8 FOSA	43	cn	11 - 149	08/15/25 06:46	08/27/25 10:59	1
d5-NEtFOSAA	64	cn	30 - 180	08/15/25 06:46	08/27/25 10:59	1
M2-6:2 FTS	254	*5+ cn	26 - 200	08/15/25 06:46	08/27/25 10:59	1
M2-8:2 FTS	161	cn	27 - 200	08/15/25 06:46	08/27/25 10:59	1
13C3 HFPO-DA	55	cn	11 - 166	08/15/25 06:46	08/27/25 10:59	1
d7-N-MeFOSE-M	10	cn	10 - 154	08/15/25 06:46	08/27/25 10:59	1
d9-N-EtFOSE-M	33	cn	10 - 146	08/15/25 06:46	08/27/25 10:59	1
d5-NEtPFOSA	26	cn	10 - 130	08/15/25 06:46	08/27/25 10:59	1
d3-NMePFOSA	12	cn	10 - 130	08/15/25 06:46	08/27/25 10:59	1
13C-6:2 FTCA	34	cn	15 - 182	08/15/25 06:46	08/27/25 10:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	65	cn	26 - 150	08/15/25 06:46	08/27/25 10:59	1
13C4 PFOA	55	cn	45 - 147	08/15/25 06:46	08/27/25 10:59	1
13C2 PFUnA	24	cn	11 - 187	08/15/25 06:46	08/27/25 10:59	1

Client Sample ID: 920025C-ADD-2
Lab Sample ID: 410-236614-8
Date Collected: 08/06/25 15:20
Matrix: Water
Date Received: 08/08/25 09:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	2500	2100	ng/L		09/02/25 14:38	09/08/25 16:41	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1500	490	ng/L		09/02/25 14:38	09/08/25 16:41	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1500	490	ng/L		09/02/25 14:38	09/08/25 16:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1500	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	2500	490	ng/L		09/02/25 14:38	09/08/25 16:41	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1500	490	ng/L		09/02/25 14:38	09/08/25 16:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	980	290	ng/L		09/02/25 14:38	09/08/25 16:41	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1500	490	ng/L		09/02/25 14:38	09/08/25 16:41	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1500	490	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1

Client Sample ID: 920025C-ADD-2
Date Collected: 08/06/25 15:20
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-8
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	2500	980	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorodecanoic acid (PFDA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1500	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorododecanoic acid (PFDoA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorohexanoic acid (PFHxA)	ND	cn	980	440	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorononanoic acid (PFNA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	980	340	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	980	490	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorooctanoic acid (PFOA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluoropentanoic acid (PFPeA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	980	250	ng/L		09/02/25 14:38	09/08/25 16:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*156*	*cn*	*19 - 191*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C2-6:2 FTS	*225*	**5+ cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C2-8:2 FTS	*287*	**5+ cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C2-PFTeDA	*23*	*cn*	*10 - 186*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C3-HFPO-DA	*69*	*cn*	*10 - 140*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C3-PFBS	*84*	*cn*	*24 - 176*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C4-PFBA	*89*	*cn*	*26 - 162*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C4-PFHpA	*79*	*cn*	*10 - 193*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C5-PFPeA	*80*	*cn*	*15 - 162*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C8-PFOA	*80*	*cn*	*27 - 160*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
13C8-PFOS	*89*	*cn*	*22 - 172*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
d3-NMeFOSAA	*174*	*cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
d5-NEtFOSAA	*150*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
d7-N-MeFOSE-M	*10*	*cn*	*10 - 181*	*09/02/25 14:38*	*09/08/25 16:41*	*1*
d9-N-EtFOSE-M	*56*	*cn*	*10 - 182*	*09/02/25 14:38*	*09/08/25 16:41*	*1*

Client Sample ID: 920025C-ADD-2
Date Collected: 08/06/25 15:20
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-8
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-PFHxS	87	cn	11 - 180	09/02/25 14:38	09/08/25 16:41	1
13C5-PFHxA	89	cn	10 - 176	09/02/25 14:38	09/08/25 16:41	1
13C6-PFDA	84	cn	19 - 168	09/02/25 14:38	09/08/25 16:41	1
13C7-PFUnA	53	cn	10 - 182	09/02/25 14:38	09/08/25 16:41	1
d3-NMePFOSA	15	cn	10 - 137	09/02/25 14:38	09/08/25 16:41	1
d5-NEtPFOSA	22	cn	10 - 130	09/02/25 14:38	09/08/25 16:41	1
13C8-PFOSA	51	cn	10 - 149	09/02/25 14:38	09/08/25 16:41	1
13C2-PFDoA	26	cn	10 - 183	09/02/25 14:38	09/08/25 16:41	1
13C9-PFNA	108	cn	10 - 198	09/02/25 14:38	09/08/25 16:41	1
13C-6:2 FTCA	93	cn	10 - 185	09/02/25 14:38	09/08/25 16:41	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorodecanoic acid (PFDA)	**480**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 11:13	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		08/15/25 06:46	08/27/25 11:13	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	**17000**	**cn**	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-ADD-2
Date Collected: 08/06/25 15:20
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-8
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		08/15/25 06:46	08/27/25 11:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		08/15/25 06:46	08/27/25 11:13	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/27/25 11:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*44*	*cn*	*10 - 168*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C5 PFPeA	*73*	*cn*	*15 - 189*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C5 PFHxA	*57*	*cn*	*20 - 165*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C4 PFHpA	*64*	*cn*	*33 - 166*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C8 PFOA	*103*	*cn*	*40 - 154*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C9 PFNA	*66*	*cn*	*39 - 162*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C6 PFDA	*78*	*cn*	*41 - 153*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C7 PFUnA	*85*	*cn*	*35 - 161*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C2-PFDoDA	*136*	*cn*	*22 - 165*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C2 PFTeDA	*87*	*cn*	*17 - 156*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C3 PFBS	*184*	*cn*	*27 - 200*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C3 PFHxS	*112*	*cn*	*39 - 164*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C8 PFOS	*77*	*cn*	*44 - 153*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C8 FOSA	*44*	*cn*	*11 - 149*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
d5-NEtFOSAA	*138*	*cn*	*30 - 180*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
M2-6:2 FTS	*476*	**5+ cn*	*26 - 200*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
M2-8:2 FTS	*346*	**5+ cn*	*27 - 200*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C3 HFPO-DA	*53*	*cn*	*11 - 166*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
d7-N-MeFOSE-M	*31*	*cn*	*10 - 154*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
d9-N-EtFOSE-M	*237*	**5+ cn*	*10 - 146*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
d5-NEtPFOSA	*42*	*cn*	*10 - 130*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
d3-NMePFOSA	*30*	*cn*	*10 - 130*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C-6:2 FTCA	*54*	*cn*	*15 - 182*	*08/15/25 06:46*	*08/27/25 11:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*62*	*cn*	*26 - 150*	*08/15/25 06:46*	*08/27/25 11:13*	*1*
13C4 PFOA	*81*	*cn*	*45 - 147*	*08/15/25 06:46*	*08/27/25 11:13*	*1*

Client Sample ID: 920025C-ADD-2

Lab Sample ID: 410-236614-8

Date Collected: 08/06/25 15:20

Matrix: Water

Date Received: 08/08/25 09:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA	*93*	*cn*	*11 - 187*	*08/15/25 06:46*	*08/27/25 11:13*	*1*

Client Sample ID: 920025C-EB

Lab Sample ID: 410-236614-9

Date Collected: 08/06/25 15:25

Matrix: Water

Date Received: 08/08/25 09:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		09/02/25 14:38	09/08/25 16:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**850**	**J**	1400	480	ng/L		09/02/25 14:38	09/08/25 16:55	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		09/02/25 14:38	09/08/25 16:55	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		950	290	ng/L		09/02/25 14:38	09/08/25 16:55	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:55	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorobutanesulfonic acid (PFBS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorobutanoic acid (PFBA)	ND		2400	950	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorodecanoic acid (PFDA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorododecanoic acid (PFDoA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluoroheptanoic acid (PFHpA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorohexanoic acid (PFHxA)	ND		950	430	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorononanesulfonic acid (PFNS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorononanoic acid (PFNA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorooctanesulfonamide (PFOSA)	ND		950	330	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		950	480	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorooctanoic acid (PFOA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluoropentanesulfonic acid (PFPeS)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1

Client Sample ID: 920025C-EB
Date Collected: 08/06/25 15:25
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-9
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorotetradecanoic acid (PFTeDA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluorotridecanoic acid (PFTrDA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluoroundecanoic acid (PFUnA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		950	240	ng/L		09/02/25 14:38	09/08/25 16:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*90*		*19 - 191*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C2-6:2 FTS	*129*	*cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C2-8:2 FTS	*109*		*10 - 200*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C2-PFTeDA	*68*		*10 - 186*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C3-HFPO-DA	*71*		*10 - 140*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C3-PFBS	*83*		*24 - 176*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C4-PFBA	*87*		*26 - 162*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C4-PFHpA	*81*		*10 - 193*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C5-PFPeA	*77*		*15 - 162*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C8-PFOA	*87*		*27 - 160*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C8-PFOS	*88*		*22 - 172*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
d3-NMeFOSAA	*88*	*cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
d5-NEtFOSAA	*91*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
d7-N-MeFOSE-M	*47*		*10 - 181*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
d9-N-EtFOSE-M	*43*		*10 - 182*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C3-PFHxS	*87*		*11 - 180*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C5-PFHxA	*73*		*10 - 176*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C6-PFDA	*78*		*19 - 168*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C7-PFUnA	*66*		*10 - 182*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
d3-NMePFOSA	*30*		*10 - 137*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
d5-NEtPFOSA	*28*		*10 - 130*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C8-PFOSA	*50*		*10 - 149*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C2-PFDoA	*54*		*10 - 183*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C9-PFNA	*92*		*10 - 198*	*09/02/25 14:38*	*09/08/25 16:55*	*1*
13C-6:2 FTCA	*83*		*10 - 185*	*09/02/25 14:38*	*09/08/25 16:55*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1

Client Sample ID: 920025C-EB
Date Collected: 08/06/25 15:25
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-9
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**270**	**J**	1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorononanoic acid (PFNA)	**2300**	**I**	1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorodecanoic acid (PFDA)	**320**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		08/15/25 06:46	08/23/25 14:03	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/15/25 06:46	08/23/25 14:03	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/15/25 06:46	08/23/25 14:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1

Client Sample ID: 920025C-EB
Lab Sample ID: 410-236614-9
Date Collected: 08/06/25 15:25
Matrix: Water
Date Received: 08/08/25 09:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:03	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		08/15/25 06:46	08/23/25 14:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*73*		*10 - 168*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C5 PFPeA	*79*		*15 - 189*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C5 PFHxA	*72*		*20 - 165*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C4 PFHpA	*69*		*33 - 166*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C8 PFOA	*96*		*40 - 154*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C9 PFNA	*81*		*39 - 162*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C6 PFDA	*77*		*41 - 153*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C7 PFUnA	*79*		*35 - 161*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C2-PFDoDA	*70*		*22 - 165*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C2 PFTeDA	*70*		*17 - 156*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C3 PFBS	*88*		*27 - 200*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C3 PFHxS	*69*		*39 - 164*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C8 PFOS	*77*		*44 - 153*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C8 FOSA	*52*		*11 - 149*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
d5-NEtFOSAA	*105*	*cn*	*30 - 180*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
M2-6:2 FTS	*150*		*26 - 200*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
M2-8:2 FTS	*127*	*cn*	*27 - 200*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C3 HFPO-DA	*81*		*11 - 166*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
d7-N-MeFOSE-M	*47*		*10 - 154*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
d9-N-EtFOSE-M	*51*		*10 - 146*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
d5-NEtPFOSA	*28*		*10 - 130*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
d3-NMePFOSA	*30*		*10 - 130*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C-6:2 FTCA	*65*		*15 - 182*	*08/15/25 06:46*	*08/23/25 14:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*79*		*26 - 150*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C4 PFOA	*74*		*45 - 147*	*08/15/25 06:46*	*08/23/25 14:03*	*1*
13C2 PFUnA	*81*		*11 - 187*	*08/15/25 06:46*	*08/23/25 14:03*	*1*

Client Sample ID: 920025C-FB
Lab Sample ID: 410-236614-10
Date Collected: 08/06/25 15:30
Matrix: Water
Date Received: 08/08/25 09:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		09/02/25 14:38	09/08/25 17:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 17:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1

Client Sample ID: 920025C-FB
Date Collected: 08/06/25 15:30
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-10
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 17:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	490	ng/L		09/02/25 14:38	09/08/25 17:08	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 17:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		980	290	ng/L		09/02/25 14:38	09/08/25 17:08	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 17:08	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorobutanesulfonic acid (PFBS)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorobutanoic acid (PFBA)	ND		2500	980	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorodecanoic acid (PFDA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorododecanoic acid (PFDoA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluoroheptanoic acid (PFHpA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorohexanesulfonic acid (PFHxS)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorohexanoic acid (PFHxA)	ND		980	440	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorononanesulfonic acid (PFNS)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorononanoic acid (PFNA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorooctanesulfonamide (PFOSA)	ND		980	340	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorooctanesulfonic acid (PFOS)	ND		980	490	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorooctanoic acid (PFOA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluoropentanoic acid (PFPeA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorotetradecanoic acid (PFTeDA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluorotridecanoic acid (PFTrDA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluoroundecanoic acid (PFUnA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		980	250	ng/L		09/02/25 14:38	09/08/25 17:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*83*		*19 - 191*	*09/02/25 14:38*	*09/08/25 17:08*	*1*

Client Sample ID: 920025C-FB
Date Collected: 08/06/25 15:30
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-10
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-6:2 FTS	105	cn	13 - 200	09/02/25 14:38	09/08/25 17:08	1
13C2-8:2 FTS	93		10 - 200	09/02/25 14:38	09/08/25 17:08	1
13C2-PFTeDA	75		10 - 186	09/02/25 14:38	09/08/25 17:08	1
13C3-HFPO-DA	69		10 - 140	09/02/25 14:38	09/08/25 17:08	1
13C3-PFBS	83		24 - 176	09/02/25 14:38	09/08/25 17:08	1
13C4-PFBA	84		26 - 162	09/02/25 14:38	09/08/25 17:08	1
13C4-PFHpA	77		10 - 193	09/02/25 14:38	09/08/25 17:08	1
13C5-PFPeA	78		15 - 162	09/02/25 14:38	09/08/25 17:08	1
13C8-PFOA	82		27 - 160	09/02/25 14:38	09/08/25 17:08	1
13C8-PFOS	85		22 - 172	09/02/25 14:38	09/08/25 17:08	1
d3-NMeFOSAA	81	cn	10 - 198	09/02/25 14:38	09/08/25 17:08	1
d5-NEtFOSAA	87	cn	10 - 200	09/02/25 14:38	09/08/25 17:08	1
d7-N-MeFOSE-M	41		10 - 181	09/02/25 14:38	09/08/25 17:08	1
d9-N-EtFOSE-M	37		10 - 182	09/02/25 14:38	09/08/25 17:08	1
13C3-PFHxS	88		11 - 180	09/02/25 14:38	09/08/25 17:08	1
13C5-PFHxA	71		10 - 176	09/02/25 14:38	09/08/25 17:08	1
13C6-PFDA	79		19 - 168	09/02/25 14:38	09/08/25 17:08	1
13C7-PFUnA	69		10 - 182	09/02/25 14:38	09/08/25 17:08	1
d3-NMePFOSA	29		10 - 137	09/02/25 14:38	09/08/25 17:08	1
d5-NEtPFOSA	26		10 - 130	09/02/25 14:38	09/08/25 17:08	1
13C8-PFOSA	48		10 - 149	09/02/25 14:38	09/08/25 17:08	1
13C2-PFDoA	56		10 - 183	09/02/25 14:38	09/08/25 17:08	1
13C9-PFNA	88		10 - 198	09/02/25 14:38	09/08/25 17:08	1
13C-6:2 FTCA	73		10 - 185	09/02/25 14:38	09/08/25 17:08	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorodecanoic acid (PFDA)	**280**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1

Client Sample ID: 920025C-FB
Date Collected: 08/06/25 15:30
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-10
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		08/15/25 06:46	08/23/25 14:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/15/25 06:46	08/23/25 14:16	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/15/25 06:46	08/23/25 14:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:16	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		08/15/25 06:46	08/23/25 14:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*76*		*10 - 168*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C5 PFPeA	*79*		*15 - 189*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C5 PFHxA	*76*		*20 - 165*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C4 PFHpA	*74*		*33 - 166*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C8 PFOA	*107*		*40 - 154*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C9 PFNA	*82*		*39 - 162*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C6 PFDA	*82*		*41 - 153*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C7 PFUnA	*87*		*35 - 161*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C2-PFDoDA	*79*		*22 - 165*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C2 PFTeDA	*78*		*17 - 156*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C3 PFBS	*100*		*27 - 200*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C3 PFHxS	*80*		*39 - 164*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C8 PFOS	*81*		*44 - 153*	*08/15/25 06:46*	*08/23/25 14:16*	*1*
13C8 FOSA	*61*		*11 - 149*	*08/15/25 06:46*	*08/23/25 14:16*	*1*

Client Sample ID: 920025C-FB

Date Collected: 08/06/25 15:30
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-10
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	119	cn	30 - 180	08/15/25 06:46	08/23/25 14:16	1
M2-6:2 FTS	177		26 - 200	08/15/25 06:46	08/23/25 14:16	1
M2-8:2 FTS	194	cn	27 - 200	08/15/25 06:46	08/23/25 14:16	1
13C3 HFPO-DA	87		11 - 166	08/15/25 06:46	08/23/25 14:16	1
d7-N-MeFOSE-M	51		10 - 154	08/15/25 06:46	08/23/25 14:16	1
d9-N-EtFOSE-M	55		10 - 146	08/15/25 06:46	08/23/25 14:16	1
d5-NEtPFOSA	38		10 - 130	08/15/25 06:46	08/23/25 14:16	1
d3-NMePFOSA	38		10 - 130	08/15/25 06:46	08/23/25 14:16	1
13C-6:2 FTCA	67		15 - 182	08/15/25 06:46	08/23/25 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	86		26 - 150	08/15/25 06:46	08/23/25 14:16	1
13C4 PFOA	81		45 - 147	08/15/25 06:46	08/23/25 14:16	1
13C2 PFUnA	89		11 - 187	08/15/25 06:46	08/23/25 14:16	1

Client Sample ID: 920025C-DUP

Date Collected: 08/06/25 00:00
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-11
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2300	2000	ng/L		09/02/25 14:38	09/08/25 17:22	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	470	ng/L		09/02/25 14:38	09/08/25 17:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	470	ng/L		09/02/25 14:38	09/08/25 17:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2300	470	ng/L		09/02/25 14:38	09/08/25 17:22	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	470	ng/L		09/02/25 14:38	09/08/25 17:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		930	280	ng/L		09/02/25 14:38	09/08/25 17:22	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	470	ng/L		09/02/25 14:38	09/08/25 17:22	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	470	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorobutanesulfonic acid (PFBS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorobutanoic acid (PFBA)	ND		2300	930	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorodecanesulfonic acid (PFDS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorodecanoic acid (PFDA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorododecanoic acid (PFDoA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1

Client Sample ID: 920025C-DUP
Date Collected: 08/06/25 00:00
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-11
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluoroheptanoic acid (PFHpA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorohexanesulfonic acid (PFHxS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorohexanoic acid (PFHxA)	ND		930	420	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorononanesulfonic acid (PFNS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorononanoic acid (PFNA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorooctanesulfonamide (PFOSA)	ND		930	330	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorooctanesulfonic acid (PFOS)	ND		930	470	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorooctanoic acid (PFOA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluoropentanesulfonic acid (PFPeS)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluoropentanoic acid (PFPeA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorotetradecanoic acid (PFTeDA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluorotridecanoic acid (PFTrDA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluoroundecanoic acid (PFUnA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		930	230	ng/L		09/02/25 14:38	09/08/25 17:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*98*		*19 - 191*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C2-6:2 FTS	*134*	*cn*	*13 - 200*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C2-8:2 FTS	*107*		*10 - 200*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C2-PFTeDA	*74*		*10 - 186*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C3-HFPO-DA	*82*		*10 - 140*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C3-PFBS	*85*		*24 - 176*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C4-PFBA	*97*		*26 - 162*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C4-PFHpA	*92*		*10 - 193*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C5-PFPeA	*80*		*15 - 162*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C8-PFOA	*92*		*27 - 160*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C8-PFOS	*98*		*22 - 172*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
d3-NMeFOSAA	*90*	*cn*	*10 - 198*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
d5-NEtFOSAA	*93*	*cn*	*10 - 200*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
d7-N-MeFOSE-M	*51*		*10 - 181*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
d9-N-EtFOSE-M	*42*		*10 - 182*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C3-PFHxS	*101*		*11 - 180*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C5-PFHxA	*87*		*10 - 176*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C6-PFDA	*85*		*19 - 168*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
13C7-PFUnA	*79*		*10 - 182*	*09/02/25 14:38*	*09/08/25 17:22*	*1*
d3-NMePFOSA	*32*		*10 - 137*	*09/02/25 14:38*	*09/08/25 17:22*	*1*

Client Sample ID: 920025C-DUP
Date Collected: 08/06/25 00:00
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-11
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	29		10 - 130	09/02/25 14:38	09/08/25 17:22	1
13C8-PFOSA	54		10 - 149	09/02/25 14:38	09/08/25 17:22	1
13C2-PFDoA	61		10 - 183	09/02/25 14:38	09/08/25 17:22	1
13C9-PFNA	94		10 - 198	09/02/25 14:38	09/08/25 17:22	1
13C-6:2 FTCA	92		10 - 185	09/02/25 14:38	09/08/25 17:22	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluoroheptanoic acid (PFHpA)	**270**	**J B**	1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorodecanoic acid (PFDA)	**360**	**J B cn**	1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		08/15/25 06:46	08/23/25 14:30	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/15/25 06:46	08/23/25 14:30	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/15/25 06:46	08/23/25 14:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-DUP
Date Collected: 08/06/25 00:00
Date Received: 08/08/25 09:40

Lab Sample ID: 410-236614-11
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 14:30	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		08/15/25 06:46	08/23/25 14:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*78*		*10 - 168*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C5 PFPeA	*81*		*15 - 189*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C5 PFHxA	*76*		*20 - 165*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C4 PFHpA	*74*		*33 - 166*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C8 PFOA	*103*		*40 - 154*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C9 PFNA	*82*		*39 - 162*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C6 PFDA	*82*		*41 - 153*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C7 PFUnA	*81*		*35 - 161*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C2-PFDoDA	*74*		*22 - 165*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C2 PFTeDA	*73*		*17 - 156*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C3 PFBS	*94*		*27 - 200*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C3 PFHxS	*77*		*39 - 164*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C8 PFOS	*80*		*44 - 153*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C8 FOSA	*57*		*11 - 149*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
d5-NEtFOSAA	*105*	*cn*	*30 - 180*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
M2-6:2 FTS	*139*		*26 - 200*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
M2-8:2 FTS	*122*	*cn*	*27 - 200*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C3 HFPO-DA	*85*		*11 - 166*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
d7-N-MeFOSE-M	*51*		*10 - 154*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
d9-N-EtFOSE-M	*52*		*10 - 146*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
d5-NEtPFOSA	*34*		*10 - 130*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
d3-NMePFOSA	*37*		*10 - 130*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C-6:2 FTCA	*69*		*15 - 182*	*08/15/25 06:46*	*08/23/25 14:30*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*87*		*26 - 150*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C4 PFOA	*80*		*45 - 147*	*08/15/25 06:46*	*08/23/25 14:30*	*1*
13C2 PFUnA	*83*		*11 - 187*	*08/15/25 06:46*	*08/23/25 14:30*	*1*

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID			
MB 410-685894/2-B	Method Blank			

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID	(26-150)	(45-147)	(11-187)
410-236614-1	920025C-WW-Pre	79	80	88
410-236614-2	920025C-SPOT	51 cn	72 cn	73 cn
410-236614-3	920025C-Mist-Post	80 cn	81 cn	96 cn
410-236614-4	920025C-Mist-Pre	74 cn	80 cn	97 cn
410-236614-5	920025C-DET-1	98 cn	74 cn	102 cn
410-236614-6	920025C-DET-2	94	78	100
410-236614-7	920025C-ADD-1	65 cn	55 cn	24 cn
410-236614-8	920025C-ADD-2	62 cn	81 cn	93 cn
410-236614-9	920025C-EB	79	74	81
410-236614-10	920025C-FB	86	81	89
410-236614-11	920025C-DUP	87	80	83

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (19-191)	M262FTS (13-200)	M282FTS (10-200)	PFTDA (10-186)	HFPODA (10-140)	C3PFBS (24-176)	PFBA (26-162)	C4PFHA (10-193)
410-236614-1	920025C-WW-Pre	92	113 cn	119	86	77	85	93	92
410-236614-2	920025C-SPOT	491 *5+ cn	495 *5+ cn	316 *5+ cn	60	88	94	86	88
410-236614-3	920025C-Mist-Post	137	139 cn	134	98	74	86	88	85
410-236614-4	920025C-Mist-Pre	142	150 cn	120	88	79	86	91	90
410-236614-5	920025C-DET-1	2877 *5+ cn	298 *5+ cn	180 cn	5 *5- cn	779 *5+ cn	71 cn	90 cn	308 *5+ cn
410-236614-6	920025C-DET-2	194 *5+	231 *5+ cn	119	80	77	81	82	90
410-236614-7	920025C-ADD-1	332 *5+ cn	114 cn	26	0.9 *5- cn	83	69	86	27
410-236614-8	920025C-ADD-2	156 cn	225 *5+ cn	287 *5+ cn	23 cn	69 cn	84 cn	89 cn	79 cn
410-236614-9	920025C-EB	90	129 cn	109	68	71	83	87	81
410-236614-10	920025C-FB	83	105 cn	93	75	69	83	84	77
410-236614-11	920025C-DUP	98	134 cn	107	74	82	85	97	92
LCS 410-693534/2-B	Lab Control Sample	89	102	98	72	82	89	92	86
LCSD 410-693534/3-B	Lab Control Sample Dup	89	99	87	69	74	82	85	82
MB 410-693534/1-B	Method Blank	86	96	100	77	77	84	89	85

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFPeA (15-162)	C8PFOA (27-160)	C8PFOS (22-172)	d3NMFOS (10-198)	d5NEFOS (10-200)	NMFM (10-181)	NEFM (10-182)	C3PFHS (11-180)
410-236614-1	920025C-WW-Pre	82	93	178 *5+ cn	114 cn	99 cn	59	55	97
410-236614-2	920025C-SPOT	82	77	88	116 cn	105 cn	53	52	103
410-236614-3	920025C-Mist-Post	86	84	85	127 cn	133 cn	60	54	90
410-236614-4	920025C-Mist-Pre	86	91	90	104 cn	101 cn	58	49	94
410-236614-5	920025C-DET-1	84 cn	80 cn	94 cn	236 *5+ cn	241 *5+ cn	29 cn	19 cn	386 *5+ cn
410-236614-6	920025C-DET-2	82	83	89	116 cn	149 cn	76	55	104
410-236614-7	920025C-ADD-1	85	48	12 *5- cn	40 cn	22 cn	6 *5- cn	20	15
410-236614-8	920025C-ADD-2	80 cn	80 cn	89 cn	174 cn	150 cn	10 cn	56 cn	87 cn
410-236614-9	920025C-EB	77	87	88	88 cn	91 cn	47	43	87
410-236614-10	920025C-FB	78	82	85	81 cn	87 cn	41	37	88
410-236614-11	920025C-DUP	80	92	98	90 cn	93 cn	51	42	101
LCS 410-693534/2-B	Lab Control Sample	86	89	91	92	91	52	47	97
LCSD 410-693534/3-B	Lab Control Sample Dup	81	80	84	82	85	46	39	88
MB 410-693534/1-B	Method Blank	80	88	87	88	90	47	41	93

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C5PHA (10-176)	C6PFDA (19-168)	13C7PUA (10-182)	d3NMFSA (10-137)	d5NPFSA (10-130)	PFOSA (10-149)	PFDoDA (10-183)	C9PFNA (10-198)
410-236614-1	920025C-WW-Pre	81	82	85	34	32	64	70	181
410-236614-2	920025C-SPOT	91	69	48	70	59	49	55	94
410-236614-3	920025C-Mist-Post	77	81	84	36	35	67	66	95
410-236614-4	920025C-Mist-Pre	85	83	71	37	30	60	66	98
410-236614-5	920025C-DET-1	687 *5+ cn	91 cn	110 cn	27 cn	22 cn	25 cn	63 cn	103 cn
410-236614-6	920025C-DET-2	92	86	80	58	47	68	81	88
410-236614-7	920025C-ADD-1	92	16 *5- cn	8 *5- cn	9 *5- cn	23	29	2 *5- cn	27
410-236614-8	920025C-ADD-2	89 cn	84 cn	53 cn	15 cn	22 cn	51 cn	26 cn	108 cn
410-236614-9	920025C-EB	73	78	66	30	28	50	54	92

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-236614-1
Project/Site: A Cleaner World #206

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C5PHA (10-176)	C6PFDA (19-168)	13C7PUA (10-182)	d3NMFSA (10-137)	d5NPFSA (10-130)	PFOSA (10-149)	PFDoDA (10-183)	C9PFNA (10-198)
410-236614-10	920025C-FB	71	79	69	29	26	48	56	88
410-236614-11	920025C-DUP	87	85	79	32	29	54	61	94
LCS 410-693534/2-B	Lab Control Sample	78	85	74	32	28	58	62	85
LCSD 410-693534/3-B	Lab Control Sample Dup	72	76	68	27	25	51	54	83
MB 410-693534/1-B	Method Blank	75	81	76	28	26	51	61	89

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	MFHEA (10-185)
410-236614-1	920025C-WW-Pre	82
410-236614-2	920025C-SPOT	180
410-236614-3	920025C-Mist-Post	92
410-236614-4	920025C-Mist-Pre	96
410-236614-5	920025C-DET-1	988 *5+ cn
410-236614-6	920025C-DET-2	85
410-236614-7	920025C-ADD-1	88
410-236614-8	920025C-ADD-2	93 cn
410-236614-9	920025C-EB	83
410-236614-10	920025C-FB	73
410-236614-11	920025C-DUP	92
LCS 410-693534/2-B	Lab Control Sample	87
LCSD 410-693534/3-B	Lab Control Sample Dup	77
MB 410-693534/1-B	Method Blank	78

Surrogate Legend

M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
PFTDA = 13C2-PFTeDA
HFPODA = 13C3-HFPO-DA
C3PFBS = 13C3-PFBS
PFBA = 13C4-PFBA
C4PFHA = 13C4-PFHpA
PFPeA = 13C5-PFPeA
C8PFOA = 13C8-PFOA
C8PFOS = 13C8-PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
C3PFHS = 13C3-PFHxS
13C5PHA = 13C5-PFHxA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
PFOSA = 13C8-PFOSA
PFDoDA = 13C2-PFDoA
C9PFNA = 13C9-PFNA
MFHEA = 13C-6:2 FTCA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-236614-1
Project/Site: A Cleaner World #206

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-168)	(15-189)	(20-165)	(33-166)	(40-154)	(39-162)	(41-153)	(35-161)
LCS 410-685894/3-B	Lab Control Sample	77	74	80	82	101	78	80	86
LCSD 410-685894/4-B	Lab Control Sample Dup	82	75	89	85	114	84	92	95
MB 410-685894/2-B	Method Blank	79	75	82	82	104	82	80	89

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(22-165)	(17-156)	(27-200)	(39-164)	(44-153)	(11-149)		(30-180)
LCS 410-685894/3-B	Lab Control Sample	72	78	77	80	79	70		105
LCSD 410-685894/4-B	Lab Control Sample Dup	81	88	80	84	87	74		117
MB 410-685894/2-B	Method Blank	71	77	73	78	82	64		109

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA
Lab Sample ID	Client Sample ID		(26-200)	(27-200)	(11-166)	(10-154)	(10-146)	(10-130)	(10-130)
LCS 410-685894/3-B	Lab Control Sample		88	85	87	72	71	69	69
LCSD 410-685894/4-B	Lab Control Sample Dup		88	99	94	73	77	65	68
MB 410-685894/2-B	Method Blank		81	85	86	66	67	65	66

		Percent Isotope Dilution Recovery (Acceptance Limits)
		MFHEA
Lab Sample ID	Client Sample ID	(15-182)
LCS 410-685894/3-B	Lab Control Sample	93
LCSD 410-685894/4-B	Lab Control Sample Dup	99
MB 410-685894/2-B	Method Blank	90

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-236614-1
Project/Site: A Cleaner World #206

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (10-168)	PFPeA (15-189)	13C5PHA (20-165)	C4PFHA (33-166)	C8PFOA (40-154)	C9PFNA (39-162)	C6PFDA (41-153)	13C7PUA (35-161)
410-236614-1	920025C-WW-Pre	77	91	69	69	104	84	88	83
410-236614-2	920025C-SPOT	55 cn	65 cn	47 cn	59 cn	97 cn	65 cn	77 cn	82 cn
410-236614-3	920025C-Mist-Post	75 cn	102 cn	75 cn	76 cn	104 cn	73 cn	83 cn	88 cn
410-236614-4	920025C-Mist-Pre	71 cn	119 cn	65 cn	71 cn	103 cn	70 cn	80 cn	86 cn
410-236614-5	920025C-DET-1	61 cn	111 cn	87 cn	87 cn	93 cn	62 cn	69 cn	82 cn
410-236614-6	920025C-DET-2	77	84	82	80	101	75	83	91
410-236614-7	920025C-ADD-1	62 cn	119 cn	62 cn	65 cn	77 cn	51 cn	52 cn	60 cn
410-236614-8	920025C-ADD-2	44 cn	73 cn	57 cn	64 cn	103 cn	66 cn	78 cn	85 cn
410-236614-9	920025C-EB	73	79	72	69	96	81	77	79
410-236614-10	920025C-FB	76	79	76	74	107	82	82	87
410-236614-11	920025C-DUP	78	81	76	74	103	82	82	81

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDoDA (22-165)	PFTDA (17-156)	C3PFBS (27-200)	C3PFHS (39-164)	C8PFOS (44-153)	PFOSA (11-149)	d5NEFOS (30-180)	M262FTS (26-200)
410-236614-1	920025C-WW-Pre	78	75	105	83	81	62	115 cn	164
410-236614-2	920025C-SPOT	90 cn	76 cn	172 cn	98 cn	77 cn	39 cn	102 cn	479 *5+ cn
410-236614-3	920025C-Mist-Post	78 cn	78 cn	153 cn	84 cn	78 cn	52 cn	129 cn	224 *5+ cn
410-236614-4	920025C-Mist-Pre	82 cn	83 cn	205 *5+ cn	79 cn	78 cn	50 cn	128 cn	276 *5+ cn
410-236614-5	920025C-DET-1	75 cn	65 cn	273 *5+ cn	142 cn	66 cn	42 cn	138 cn	293 *5+ cn
410-236614-6	920025C-DET-2	84	89	107	87	79	60	125 cn	231 *5+ cn
410-236614-7	920025C-ADD-1	26 cn	15 *5- cn	253 *5+ cn	80 cn	50 cn	43 cn	64 cn	254 *5+ cn
410-236614-8	920025C-ADD-2	136 cn	87 cn	184 cn	112 cn	77 cn	44 cn	138 cn	476 *5+ cn
410-236614-9	920025C-EB	70	70	88	69	77	52	105 cn	150
410-236614-10	920025C-FB	79	78	100	80	81	61	119 cn	177
410-236614-11	920025C-DUP	74	73	94	77	80	57	105 cn	139

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (27-200)	HFPODA (11-166)	NMFM (10-154)	NEFM (10-146)	d5NPFSA (10-130)	d3NMFSA (10-130)	MFHEA (15-182)
410-236614-1	920025C-WW-Pre	169 cn	85	56	60	44	45	73
410-236614-2	920025C-SPOT	419 *5+ cn	49 cn	37 cn	26 cn	18 cn	46 cn	49 cn
410-236614-3	920025C-Mist-Post	234 *5+ cn	78 cn	46 cn	46 cn	34 cn	36 cn	60 cn
410-236614-4	920025C-Mist-Pre	209 *5+ cn	59 cn	46 cn	47 cn	39 cn	38 cn	48 cn
410-236614-5	920025C-DET-1	330 *5+ cn	77 cn	58 cn	51 cn	65 cn	64 cn	73 cn
410-236614-6	920025C-DET-2	226 *5+ cn	86	60	65	58	56	64
410-236614-7	920025C-ADD-1	161 cn	55 cn	10 cn	33 cn	26 cn	12 cn	34 cn
410-236614-8	920025C-ADD-2	346 *5+ cn	53 cn	31 cn	237 *5+ cn	42 cn	30 cn	54 cn
410-236614-9	920025C-EB	127 cn	81	47	51	28	30	65
410-236614-10	920025C-FB	194 cn	87	51	55	38	38	67
410-236614-11	920025C-DUP	122 cn	85	51	52	34	37	69

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-693534/1-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 693534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		09/02/25 14:38	09/08/25 14:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-693534/1-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 693534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		09/02/25 14:38	09/08/25 14:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*86*		*19 - 191*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C2-6:2 FTS	*96*		*13 - 200*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C2-8:2 FTS	*100*		*10 - 200*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C2-PFTeDA	*77*		*10 - 186*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C3-HFPO-DA	*77*		*10 - 140*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C3-PFBS	*84*		*24 - 176*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C4-PFBA	*89*		*26 - 162*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C4-PFHpA	*85*		*10 - 193*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C5-PFPeA	*80*		*15 - 162*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C8-PFOA	*88*		*27 - 160*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C8-PFOS	*87*		*22 - 172*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d3-NMeFOSAA	*88*		*10 - 198*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d5-NEtFOSAA	*90*		*10 - 200*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d7-N-MeFOSE-M	*47*		*10 - 181*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d9-N-EtFOSE-M	*41*		*10 - 182*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C3-PFHxS	*93*		*11 - 180*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C5-PFHxA	*75*		*10 - 176*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C6-PFDA	*81*		*19 - 168*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C7-PFUnA	*76*		*10 - 182*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d3-NMePFOSA	*28*		*10 - 137*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
d5-NEtPFOSA	*26*		*10 - 130*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C8-PFOSA	*51*		*10 - 149*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C2-PFDoA	*61*		*10 - 183*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C9-PFNA	*89*		*10 - 198*	*09/02/25 14:38*	*09/08/25 14:12*	*1*
13C-6:2 FTCA	*78*		*10 - 185*	*09/02/25 14:38*	*09/08/25 14:12*	*1*

Lab Sample ID: LCS 410-693534/2-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 693534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4200		ng/L		70	61 - 131
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5820		ng/L		97	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	5490		ng/L		90	58 - 136

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-693534/2-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 693534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	5410		ng/L		88	57 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	4640		ng/L		78	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	5260		ng/L		87	55 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	5040		ng/L		79	50 - 137
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	5370		ng/L		84	53 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	5740		ng/L		90	59 - 137
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	5930		ng/L		93	59 - 135
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	5450		ng/L		85	54 - 131
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	5900		ng/L		92	61 - 134
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	5540		ng/L		87	58 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	5470		ng/L		96	56 - 130
Perfluorobutanoic acid (PFBA)	6400	5830		ng/L		91	54 - 144
Perfluorodecanesulfonic acid (PFDS)	6170	4190		ng/L		68	63 - 130
Perfluorodecanoic acid (PFDA)	6400	5920		ng/L		93	61 - 135
Perfluorododecanesulfonic acid (PFDoS)	6210	4240		ng/L		68	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	6720		ng/L		105	60 - 133
Perfluoroheptanesulfonic acid (PFHpS)	6110	5230		ng/L		86	51 - 132
Perfluoroheptanoic acid (PFHpA)	6400	6160		ng/L		96	54 - 133
Perfluorohexanesulfonic acid (PFHxS)	5840	4870		ng/L		83	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	5690		ng/L		89	55 - 132
Perfluorononanesulfonic acid (PFNS)	6160	4910		ng/L		80	65 - 136
Perfluorononanoic acid (PFNA)	6400	6100		ng/L		95	50 - 140
Perfluorooctanesulfonamide (PFOSA)	6400	6290		ng/L		98	62 - 136
Perfluorooctanesulfonic acid (PFOS)	5950	5240		ng/L		88	37 - 149
Perfluorooctanoic acid (PFOA)	6400	5450		ng/L		85	60 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	5190		ng/L		86	59 - 130
Perfluoropentanoic acid (PFPeA)	6400	6080		ng/L		95	59 - 133
Perfluorotetradecanoic acid (PFTeDA)	6400	6060		ng/L		95	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	6210		ng/L		97	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	5850		ng/L		91	58 - 133

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-693534/2-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 693534

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4920		ng/L		86	34 - 134		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	4990		ng/L		78	10 - 155		
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5430		ng/L		85	53 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	3500		ng/L		55	10 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	5510		ng/L		86	46 - 133		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	4130		ng/L		65	14 - 142		
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	4980		ng/L		78	52 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2-4:2 FTS	*89*		*19 - 191*
13C2-6:2 FTS	*102*		*13 - 200*
13C2-8:2 FTS	*98*		*10 - 200*
13C2-PFTeDA	*72*		*10 - 186*
13C3-HFPO-DA	*82*		*10 - 140*
13C3-PFBS	*89*		*24 - 176*
13C4-PFBA	*92*		*26 - 162*
13C4-PFHpA	*86*		*10 - 193*
13C5-PFPeA	*86*		*15 - 162*
13C8-PFOA	*89*		*27 - 160*
13C8-PFOS	*91*		*22 - 172*
d3-NMeFOSAA	*92*		*10 - 198*
d5-NEtFOSAA	*91*		*10 - 200*
d7-N-MeFOSE-M	*52*		*10 - 181*
d9-N-EtFOSE-M	*47*		*10 - 182*
13C3-PFHxS	*97*		*11 - 180*
13C5-PFHxA	*78*		*10 - 176*
13C6-PFDA	*85*		*19 - 168*
13C7-PFUnA	*74*		*10 - 182*
d3-NMePFOSA	*32*		*10 - 137*
d5-NEtPFOSA	*28*		*10 - 130*
13C8-PFOSA	*58*		*10 - 149*
13C2-PFDoA	*62*		*10 - 183*
13C9-PFNA	*85*		*10 - 198*
13C-6:2 FTCA	*87*		*10 - 185*

Lab Sample ID: LCSD 410-693534/3-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 693534

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	4720		ng/L		78	61 - 131	12	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-693534/3-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 693534

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			6000	5280		ng/L		88	57 - 130	10	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			6090	5770		ng/L		95	58 - 136	5	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			6140	5580		ng/L		91	57 - 134	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	5120		ng/L		86	59 - 130	10	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)			6050	5250		ng/L		87	55 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			6400	5620		ng/L		88	50 - 137	11	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			6400	5280		ng/L		83	53 - 130	2	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			6400	6060		ng/L		95	59 - 137	5	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			6400	5630		ng/L		88	59 - 135	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			6400	5620		ng/L		88	54 - 131	3	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			6400	5960		ng/L		93	61 - 134	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			6400	5640		ng/L		88	58 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)			5680	5540		ng/L		97	56 - 130	1	30
Perfluorobutanoic acid (PFBA)			6400	6200		ng/L		97	54 - 144	6	30
Perfluorodecanesulfonic acid (PFDS)			6170	4500		ng/L		73	63 - 130	7	30
Perfluorodecanoic acid (PFDA)			6400	6490		ng/L		101	61 - 135	9	30
Perfluorododecanesulfonic acid (PFDoS)			6210	4980		ng/L		80	59 - 130	16	30
Perfluorododecanoic acid (PFDoA)			6400	6720		ng/L		105	60 - 133	0	30
Perfluoroheptanesulfonic acid (PFHpS)			6110	5700		ng/L		93	51 - 132	8	30
Perfluoroheptanoic acid (PFHpA)			6400	6480		ng/L		101	54 - 133	5	30
Perfluorohexanesulfonic acid (PFHxS)			5840	5140		ng/L		88	56 - 130	5	30
Perfluorohexanoic acid (PFHxA)			6400	6170		ng/L		96	55 - 132	8	30
Perfluorononanesulfonic acid (PFNS)			6160	5130		ng/L		83	65 - 136	4	30
Perfluorononanoic acid (PFNA)			6400	6150		ng/L		96	50 - 140	1	30
Perfluorooctanesulfonamide (PFOSA)			6400	6580		ng/L		103	62 - 136	4	30
Perfluorooctanesulfonic acid (PFOS)			5950	5400		ng/L		91	37 - 149	3	30
Perfluorooctanoic acid (PFOA)			6400	5830		ng/L		91	60 - 130	7	30
Perfluoropentanesulfonic acid (PFPeS)			6020	5620		ng/L		93	59 - 130	8	30
Perfluoropentanoic acid (PFPeA)			6400	6090		ng/L		95	59 - 133	0	30
Perfluorotetradecanoic acid (PFTeDA)			6400	6340		ng/L		99	62 - 130	5	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-693534/3-B
Matrix: Water
Analysis Batch: 696066

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 693534

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorotridecanoic acid (PFTrDA)			6400	7310		ng/L		114	53 - 133	16	30
Perfluoroundecanoic acid (PFUnA)			6400	5970		ng/L		93	58 - 133	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	5060		ng/L		89	34 - 134	3	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5030		ng/L		79	10 - 155	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5830		ng/L		91	53 - 135	7	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	3780		ng/L		59	10 - 150	7	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	5950		ng/L		93	46 - 133	8	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	4260		ng/L		67	14 - 142	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	5370		ng/L		84	52 - 130	7	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2-4:2 FTS	*89*		*19 - 191*
13C2-6:2 FTS	*99*		*13 - 200*
13C2-8:2 FTS	*87*		*10 - 200*
13C2-PFTeDA	*69*		*10 - 186*
13C3-HFPO-DA	*74*		*10 - 140*
13C3-PFBS	*82*		*24 - 176*
13C4-PFBA	*85*		*26 - 162*
13C4-PFHpA	*82*		*10 - 193*
13C5-PFPeA	*81*		*15 - 162*
13C8-PFOA	*80*		*27 - 160*
13C8-PFOS	*84*		*22 - 172*
d3-NMeFOSAA	*82*		*10 - 198*
d5-NEtFOSAA	*85*		*10 - 200*
d7-N-MeFOSE-M	*46*		*10 - 181*
d9-N-EtFOSE-M	*39*		*10 - 182*
13C3-PFHxS	*88*		*11 - 180*
13C5-PFHxA	*72*		*10 - 176*
13C6-PFDA	*76*		*19 - 168*
13C7-PFUnA	*68*		*10 - 182*
d3-NMePFOSA	*27*		*10 - 137*
d5-NEtPFOSA	*25*		*10 - 130*
13C8-PFOSA	*51*		*10 - 149*
13C2-PFDoA	*54*		*10 - 183*
13C9-PFNA	*83*		*10 - 198*
13C-6:2 FTCA	*77*		*10 - 185*

Method: 537 TOP - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-685894/2-B
Matrix: Water
Analysis Batch: 689352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685894

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorodecanoic acid (PFDA)	295	J	1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		08/15/25 06:46	08/23/25 11:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		08/15/25 06:46	08/23/25 11:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		08/15/25 06:46	08/23/25 11:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-685894/2-B
Matrix: Water
Analysis Batch: 689352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685894

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		08/15/25 06:46	08/23/25 11:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		08/15/25 06:46	08/23/25 11:20	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*79*		*10 - 168*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C5 PFPeA	*75*		*15 - 189*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C5 PFHxA	*82*		*20 - 165*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C4 PFHpA	*82*		*33 - 166*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C8 PFOA	*104*		*40 - 154*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C9 PFNA	*82*		*39 - 162*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C6 PFDA	*80*		*41 - 153*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C7 PFUnA	*89*		*35 - 161*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C2-PFDoDA	*71*		*22 - 165*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C2 PFTeDA	*77*		*17 - 156*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C3 PFBS	*73*		*27 - 200*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C3 PFHxS	*78*		*39 - 164*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C8 PFOS	*82*		*44 - 153*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C8 FOSA	*64*		*11 - 149*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
d5-NEtFOSAA	*109*		*30 - 180*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
M2-6:2 FTS	*81*		*26 - 200*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
M2-8:2 FTS	*85*		*27 - 200*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C3 HFPO-DA	*86*		*11 - 166*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
d7-N-MeFOSE-M	*66*		*10 - 154*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
d9-N-EtFOSE-M	*67*		*10 - 146*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
d5-NEtPFOSA	*65*		*10 - 130*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
d3-NMePFOSA	*66*		*10 - 130*	*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C-6:2 FTCA	*90*		*15 - 182*	*08/15/25 06:46*	*08/23/25 11:20*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C4 PFOA				*08/15/25 06:46*	*08/23/25 11:20*	*1*
13C2 PFUnA				*08/15/25 06:46*	*08/23/25 11:20*	*1*

Lab Sample ID: LCS 410-685894/3-B
Matrix: Water
Analysis Batch: 689352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685894

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12800	13200		ng/L		103	56 - 130
Perfluoropentanoic acid (PFPeA)	12800	13100		ng/L		103	56 - 130
Perfluorohexanoic acid (PFHxA)	12800	13900		ng/L		108	54 - 130
Perfluoroheptanoic acid (PFHpA)	12800	12900		ng/L		101	57 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-685894/3-B
Matrix: Water
Analysis Batch: 689352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685894

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanoic acid (PFOA)	12800	9920		ng/L		77	58 - 130
Perfluorononanoic acid (PFNA)	12800	12800		ng/L		100	61 - 130
Perfluorodecanoic acid (PFDA)	12800	12900		ng/L		101	61 - 130
Perfluoroundecanoic acid (PFUnA)	12800	12800		ng/L		100	60 - 130
Perfluorododecanoic acid (PFDoA)	12800	15100		ng/L		118	59 - 130
Perfluorotridecanoic acid (PFTrDA)	12800	14900		ng/L		117	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	12800	13600		ng/L		106	59 - 130
Perfluorobutanesulfonic acid (PFBS)	11400	11700		ng/L		103	58 - 130
Perfluoropentanesulfonic acid (PFPeS)	12000	12100		ng/L		100	55 - 130
Perfluorohexanesulfonic acid (PFHxS)	11700	10800		ng/L		93	59 - 130
Perfluoroheptanesulfonic acid (PFHpS)	12200	12200		ng/L		100	55 - 130
Perfluorooctanesulfonic acid (PFOS)	11900	11800		ng/L		99	59 - 130
Perfluorononanesulfonic acid (PFNS)	12300	12000		ng/L		97	58 - 130
Perfluorodecanesulfonic acid (PFDS)	12300	12400		ng/L		100	53 - 130
Perfluorododecanesulfonic acid (PFDoS)	12400	11700		ng/L		94	51 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	13800		ng/L		115	59 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	11600		ng/L		96	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	11900		ng/L		97	55 - 130
Perfluorooctanesulfonamide (PFOSA)	12800	13100		ng/L		102	64 - 133
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	12500		ng/L		98	59 - 148
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	12800		ng/L		100	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	12300		ng/L		96	58 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	10400		ng/L		81	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	12100		ng/L		95	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	12300		ng/L		96	61 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	11500		ng/L		89	47 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	12100		ng/L		100	57 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	12400		ng/L		97	56 - 137
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	12900		ng/L		101	49 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-685894/3-B
Matrix: Water
Analysis Batch: 689352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685894

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	13000		ng/L		101	50 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	11800		ng/L		98	58 - 130		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	12100		ng/L		100	55 - 130		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	11100		ng/L		97	50 - 130		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	13500		ng/L		105	34 - 148		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	12800		ng/L		100	45 - 139		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	12300		ng/L		96	38 - 135		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*77*		*10 - 168*
13C5 PFPeA	*74*		*15 - 189*
13C5 PFHxA	*80*		*20 - 165*
13C4 PFHpA	*82*		*33 - 166*
13C8 PFOA	*101*		*40 - 154*
13C9 PFNA	*78*		*39 - 162*
13C6 PFDA	*80*		*41 - 153*
13C7 PFUnA	*86*		*35 - 161*
13C2-PFDoDA	*72*		*22 - 165*
13C2 PFTeDA	*78*		*17 - 156*
13C3 PFBS	*77*		*27 - 200*
13C3 PFHxS	*80*		*39 - 164*
13C8 PFOS	*79*		*44 - 153*
13C8 FOSA	*70*		*11 - 149*
d5-NEtFOSAA	*105*		*30 - 180*
M2-6:2 FTS	*88*		*26 - 200*
M2-8:2 FTS	*85*		*27 - 200*
13C3 HFPO-DA	*87*		*11 - 166*
d7-N-MeFOSE-M	*72*		*10 - 154*
d9-N-EtFOSE-M	*71*		*10 - 146*
d5-NEtPFOSA	*69*		*10 - 130*
d3-NMePFOSA	*69*		*10 - 130*
13C-6:2 FTCA	*93*		*15 - 182*

Lab Sample ID: LCSD 410-685894/4-B
Matrix: Water
Analysis Batch: 689352

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 685894

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			12800	12800		ng/L		100	56 - 130	3	30
Perfluoropentanoic acid (PFPeA)			12800	13500		ng/L		105	56 - 130	2	30
Perfluorohexanoic acid (PFHxA)			12800	13000		ng/L		102	54 - 130	6	30
Perfluoroheptanoic acid (PFHpA)			12800	13500		ng/L		105	57 - 130	4	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-685894/4-B
Matrix: Water
Analysis Batch: 689352

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 685894

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)			12800	9420		ng/L		74	58 - 130	5	30
Perfluorononanoic acid (PFNA)			12800	12600		ng/L		99	61 - 130	1	30
Perfluorodecanoic acid (PFDA)			12800	12800		ng/L		100	61 - 130	1	30
Perfluoroundecanoic acid (PFUnA)			12800	11900		ng/L		93	60 - 130	7	30
Perfluorododecanoic acid (PFDoA)			12800	14300		ng/L		112	59 - 130	5	30
Perfluorotridecanoic acid (PFTrDA)			12800	14900		ng/L		116	56 - 130	0	30
Perfluorotetradecanoic acid (PFTeDA)			12800	13100		ng/L		103	59 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)			11400	12000		ng/L		105	58 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)			12000	12300		ng/L		102	55 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)			11700	11200		ng/L		96	59 - 130	4	30
Perfluoroheptanesulfonic acid (PFHpS)			12200	12300		ng/L		101	55 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)			11900	11400		ng/L		96	59 - 130	3	30
Perfluorononanesulfonic acid (PFNS)			12300	11700		ng/L		95	58 - 130	2	30
Perfluorodecanesulfonic acid (PFDS)			12300	11600		ng/L		94	53 - 130	6	30
Perfluorododecanesulfonic acid (PFDoS)			12400	11600		ng/L		93	51 - 130	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			12000	14400		ng/L		120	59 - 130	4	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			12200	12700		ng/L		105	56 - 130	9	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			12300	11700		ng/L		95	55 - 130	2	30
Perfluorooctanesulfonamide (PFOSA)			12800	13200		ng/L		103	64 - 133	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			12800	12600		ng/L		98	59 - 148	0	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			12800	12900		ng/L		101	60 - 140	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			12800	12000		ng/L		93	58 - 130	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			12800	9970		ng/L		78	57 - 130	4	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			12800	13000		ng/L		101	60 - 130	7	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			12800	12000		ng/L		94	61 - 130	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			12800	12000		ng/L		94	47 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			12100	12700		ng/L		105	57 - 130	5	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			12800	12100		ng/L		95	56 - 137	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			12800	12900		ng/L		101	49 - 130	0	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-685894/4-B
Matrix: Water
Analysis Batch: 689352

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 685894

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	12700		ng/L		99	50 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	11300		ng/L		95	58 - 130	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	12600		ng/L		105	55 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	10800		ng/L		95	50 - 130	3	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	13500		ng/L		105	34 - 148	0	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	13100		ng/L		102	45 - 139	2	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	12000		ng/L		94	38 - 135	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*82*		*10 - 168*
13C5 PFPeA	*75*		*15 - 189*
13C5 PFHxA	*89*		*20 - 165*
13C4 PFHpA	*85*		*33 - 166*
13C8 PFOA	*114*		*40 - 154*
13C9 PFNA	*84*		*39 - 162*
13C6 PFDA	*92*		*41 - 153*
13C7 PFUnA	*95*		*35 - 161*
13C2-PFDoDA	*81*		*22 - 165*
13C2 PFTeDA	*88*		*17 - 156*
13C3 PFBS	*80*		*27 - 200*
13C3 PFHxS	*84*		*39 - 164*
13C8 PFOS	*87*		*44 - 153*
13C8 FOSA	*74*		*11 - 149*
d5-NEtFOSAA	*117*		*30 - 180*
M2-6:2 FTS	*88*		*26 - 200*
M2-8:2 FTS	*99*		*27 - 200*
13C3 HFPO-DA	*94*		*11 - 166*
d7-N-MeFOSE-M	*73*		*10 - 154*
d9-N-EtFOSE-M	*77*		*10 - 146*
d5-NEtPFOSA	*65*		*10 - 130*
d3-NMePFOSA	*68*		*10 - 130*
13C-6:2 FTCA	*99*		*15 - 182*

LCMS

Prep Batch: 685894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-1	920025C-WW-Pre	Post-Treatment	Water	TOP Post Prep	
410-236614-2 - RA	920025C-SPOT	Post-Treatment	Water	TOP Post Prep	
410-236614-2	920025C-SPOT	Post-Treatment	Water	TOP Post Prep	
410-236614-3 - RA	920025C-Mist-Post	Post-Treatment	Water	TOP Post Prep	
410-236614-3	920025C-Mist-Post	Post-Treatment	Water	TOP Post Prep	
410-236614-4 - RA	920025C-Mist-Pre	Post-Treatment	Water	TOP Post Prep	
410-236614-4	920025C-Mist-Pre	Post-Treatment	Water	TOP Post Prep	
410-236614-5	920025C-DET-1	Post-Treatment	Water	TOP Post Prep	
410-236614-5 - RA	920025C-DET-1	Post-Treatment	Water	TOP Post Prep	
410-236614-6	920025C-DET-2	Post-Treatment	Water	TOP Post Prep	
410-236614-7	920025C-ADD-1	Post-Treatment	Water	TOP Post Prep	
410-236614-7 - RA	920025C-ADD-1	Post-Treatment	Water	TOP Post Prep	
410-236614-8 - RA	920025C-ADD-2	Post-Treatment	Water	TOP Post Prep	
410-236614-8	920025C-ADD-2	Post-Treatment	Water	TOP Post Prep	
410-236614-9	920025C-EB	Post-Treatment	Water	TOP Post Prep	
410-236614-10	920025C-FB	Post-Treatment	Water	TOP Post Prep	
410-236614-11	920025C-DUP	Post-Treatment	Water	TOP Post Prep	
MB 410-685894/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-685894/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-685894/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-685894/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Cleanup Batch: 686500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-1	920025C-WW-Pre	Post-Treatment	Water	Extract Aliquot	685894
410-236614-2 - RA	920025C-SPOT	Post-Treatment	Water	Extract Aliquot	685894
410-236614-2	920025C-SPOT	Post-Treatment	Water	Extract Aliquot	685894
410-236614-3 - RA	920025C-Mist-Post	Post-Treatment	Water	Extract Aliquot	685894
410-236614-3	920025C-Mist-Post	Post-Treatment	Water	Extract Aliquot	685894
410-236614-4 - RA	920025C-Mist-Pre	Post-Treatment	Water	Extract Aliquot	685894
410-236614-4	920025C-Mist-Pre	Post-Treatment	Water	Extract Aliquot	685894
410-236614-5	920025C-DET-1	Post-Treatment	Water	Extract Aliquot	685894
410-236614-5 - RA	920025C-DET-1	Post-Treatment	Water	Extract Aliquot	685894
410-236614-6	920025C-DET-2	Post-Treatment	Water	Extract Aliquot	685894
410-236614-7	920025C-ADD-1	Post-Treatment	Water	Extract Aliquot	685894
410-236614-7 - RA	920025C-ADD-1	Post-Treatment	Water	Extract Aliquot	685894
410-236614-8	920025C-ADD-2	Post-Treatment	Water	Extract Aliquot	685894
410-236614-8 - RA	920025C-ADD-2	Post-Treatment	Water	Extract Aliquot	685894
410-236614-9	920025C-EB	Post-Treatment	Water	Extract Aliquot	685894
410-236614-10	920025C-FB	Post-Treatment	Water	Extract Aliquot	685894
410-236614-11	920025C-DUP	Post-Treatment	Water	Extract Aliquot	685894
MB 410-685894/1-B	Method Blank	Total/NA	Water	Extract Aliquot	685894
MB 410-685894/2-B	Method Blank	Total/NA	Water	Extract Aliquot	685894
LCS 410-685894/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	685894
LCSD 410-685894/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	685894

Analysis Batch: 689352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-1	920025C-WW-Pre	Post-Treatment	Water	537 TOP	686500
410-236614-2 - RA	920025C-SPOT	Post-Treatment	Water	537 TOP	686500
410-236614-3 - RA	920025C-Mist-Post	Post-Treatment	Water	537 TOP	686500

LCMS (Continued)

Analysis Batch: 689352 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-4 - RA	920025C-Mist-Pre	Post-Treatment	Water	537 TOP	686500
410-236614-5 - RA	920025C-DET-1	Post-Treatment	Water	537 TOP	686500
410-236614-6	920025C-DET-2	Post-Treatment	Water	537 TOP	686500
410-236614-7 - RA	920025C-ADD-1	Post-Treatment	Water	537 TOP	686500
410-236614-8 - RA	920025C-ADD-2	Post-Treatment	Water	537 TOP	686500
410-236614-9	920025C-EB	Post-Treatment	Water	537 TOP	686500
410-236614-10	920025C-FB	Post-Treatment	Water	537 TOP	686500
410-236614-11	920025C-DUP	Post-Treatment	Water	537 TOP	686500
MB 410-685894/1-B	Method Blank	Total/NA	Water	537 TOP	686500
MB 410-685894/2-B	Method Blank	Total/NA	Water	537 TOP	686500
LCS 410-685894/3-B	Lab Control Sample	Total/NA	Water	537 TOP	686500
LCSD 410-685894/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	686500

Analysis Batch: 690817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-2	920025C-SPOT	Post-Treatment	Water	537 TOP	686500
410-236614-3	920025C-Mist-Post	Post-Treatment	Water	537 TOP	686500
410-236614-4	920025C-Mist-Pre	Post-Treatment	Water	537 TOP	686500
410-236614-5	920025C-DET-1	Post-Treatment	Water	537 TOP	686500
410-236614-7	920025C-ADD-1	Post-Treatment	Water	537 TOP	686500
410-236614-8	920025C-ADD-2	Post-Treatment	Water	537 TOP	686500

Prep Batch: 693534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-1	920025C-WW-Pre	Total/NA	Water	EPA 537 (Mod)	
410-236614-2	920025C-SPOT	Total/NA	Water	EPA 537 (Mod)	
410-236614-3	920025C-Mist-Post	Total/NA	Water	EPA 537 (Mod)	
410-236614-4	920025C-Mist-Pre	Total/NA	Water	EPA 537 (Mod)	
410-236614-5 - RA	920025C-DET-1	Total/NA	Water	EPA 537 (Mod)	
410-236614-5	920025C-DET-1	Total/NA	Water	EPA 537 (Mod)	
410-236614-6	920025C-DET-2	Total/NA	Water	EPA 537 (Mod)	
410-236614-7	920025C-ADD-1	Total/NA	Water	EPA 537 (Mod)	
410-236614-8 - RA	920025C-ADD-2	Total/NA	Water	EPA 537 (Mod)	
410-236614-8	920025C-ADD-2	Total/NA	Water	EPA 537 (Mod)	
410-236614-9	920025C-EB	Total/NA	Water	EPA 537 (Mod)	
410-236614-10	920025C-FB	Total/NA	Water	EPA 537 (Mod)	
410-236614-11	920025C-DUP	Total/NA	Water	EPA 537 (Mod)	
MB 410-693534/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-693534/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-693534/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 694861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-1	920025C-WW-Pre	Total/NA	Water	Extract Aliquot	693534
410-236614-2	920025C-SPOT	Total/NA	Water	Extract Aliquot	693534
410-236614-3	920025C-Mist-Post	Total/NA	Water	Extract Aliquot	693534
410-236614-4	920025C-Mist-Pre	Total/NA	Water	Extract Aliquot	693534
410-236614-5 - RA	920025C-DET-1	Total/NA	Water	Extract Aliquot	693534
410-236614-5	920025C-DET-1	Total/NA	Water	Extract Aliquot	693534
410-236614-6	920025C-DET-2	Total/NA	Water	Extract Aliquot	693534
410-236614-7	920025C-ADD-1	Total/NA	Water	Extract Aliquot	693534

LCMS (Continued)

Cleanup Batch: 694861 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-8 - RA	920025C-ADD-2	Total/NA	Water	Extract Aliquot	693534
410-236614-8	920025C-ADD-2	Total/NA	Water	Extract Aliquot	693534
410-236614-9	920025C-EB	Total/NA	Water	Extract Aliquot	693534
410-236614-10	920025C-FB	Total/NA	Water	Extract Aliquot	693534
410-236614-11	920025C-DUP	Total/NA	Water	Extract Aliquot	693534
MB 410-693534/1-B	Method Blank	Total/NA	Water	Extract Aliquot	693534
LCS 410-693534/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	693534
LCSD 410-693534/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	693534

Analysis Batch: 696066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-1	920025C-WW-Pre	Total/NA	Water	537 IDA	694861
410-236614-2	920025C-SPOT	Total/NA	Water	537 IDA	694861
410-236614-3	920025C-Mist-Post	Total/NA	Water	537 IDA	694861
410-236614-4	920025C-Mist-Pre	Total/NA	Water	537 IDA	694861
410-236614-5	920025C-DET-1	Total/NA	Water	537 IDA	694861
410-236614-6	920025C-DET-2	Total/NA	Water	537 IDA	694861
410-236614-7	920025C-ADD-1	Total/NA	Water	537 IDA	694861
410-236614-8	920025C-ADD-2	Total/NA	Water	537 IDA	694861
410-236614-9	920025C-EB	Total/NA	Water	537 IDA	694861
410-236614-10	920025C-FB	Total/NA	Water	537 IDA	694861
410-236614-11	920025C-DUP	Total/NA	Water	537 IDA	694861
MB 410-693534/1-B	Method Blank	Total/NA	Water	537 IDA	694861
LCS 410-693534/2-B	Lab Control Sample	Total/NA	Water	537 IDA	694861
LCSD 410-693534/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	694861

Analysis Batch: 696800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-5 - RA	920025C-DET-1	Total/NA	Water	537 IDA	694861
410-236614-8 - RA	920025C-ADD-2	Total/NA	Water	537 IDA	694861

Prep Batch: 697828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-7 - RE	920025C-ADD-1	Total/NA	Water	EPA 537 (Mod)	
MB 410-697828/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-697828/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-697828/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 699082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-7 - RE	920025C-ADD-1	Total/NA	Water	Extract Aliquot	697828
MB 410-697828/1-B	Method Blank	Total/NA	Water	Extract Aliquot	697828
LCS 410-697828/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	697828
LCSD 410-697828/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	697828

Analysis Batch: 700134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-236614-7 - RE	920025C-ADD-1	Total/NA	Water	537 IDA	699082
MB 410-697828/1-B	Method Blank	Total/NA	Water	537 IDA	699082
LCS 410-697828/2-B	Lab Control Sample	Total/NA	Water	537 IDA	699082
LCSD 410-697828/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	699082

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-236614-1
Project/Site: A Cleaner World #206

Client Sample ID: 920025C-WW-Pre
Lab Sample ID: 410-236614-1
Date Collected: 08/06/25 14:10
Matrix: Water
Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 14:52
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	689352	FDE4	ELLE	08/23/25 12:00

Client Sample ID: 920025C-SPOT
Lab Sample ID: 410-236614-2
Date Collected: 08/06/25 14:25
Matrix: Water
Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 15:06
Post-Treatment	Prep	TOP Post Prep	RA		685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot	RA		686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP	RA	1	689352	FDE4	ELLE	08/23/25 12:14
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	690817	FDE4	ELLE	08/27/25 10:05

Client Sample ID: 920025C-Mist-Post
Lab Sample ID: 410-236614-3
Date Collected: 08/06/25 14:44
Matrix: Water
Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 15:20
Post-Treatment	Prep	TOP Post Prep	RA		685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot	RA		686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP	RA	1	689352	FDE4	ELLE	08/23/25 12:28
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	690817	FDE4	ELLE	08/27/25 10:18

Client Sample ID: 920025C-Mist-Pre
Lab Sample ID: 410-236614-4
Date Collected: 08/06/25 14:50
Matrix: Water
Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 15:33

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-Mist-Pre

Lab Sample ID: 410-236614-4
Matrix: Water
Date Collected: 08/06/25 14:50
Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep	RA		685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot	RA		686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP	RA	1	689352	FDE4	ELLE	08/23/25 12:41
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	690817	FDE4	ELLE	08/27/25 10:32

Client Sample ID: 920025C-DET-1

Lab Sample ID: 410-236614-5
Matrix: Water
Date Collected: 08/06/25 14:55
Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)	RA		693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot	RA		694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA	RA	1	696800	DSU6	ELLE	09/09/25 20:14
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 15:47
Post-Treatment	Prep	TOP Post Prep	RA		685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot	RA		686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP	RA	1	689352	FDE4	ELLE	08/23/25 12:55
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	690817	FDE4	ELLE	08/27/25 10:46

Client Sample ID: 920025C-DET-2

Lab Sample ID: 410-236614-6
Matrix: Water
Date Collected: 08/06/25 15:00
Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 16:00
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	689352	FDE4	ELLE	08/23/25 13:08

Client Sample ID: 920025C-ADD-1

Lab Sample ID: 410-236614-7
Matrix: Water
Date Collected: 08/06/25 15:15
Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 16:27

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-ADD-1

Lab Sample ID: 410-236614-7

Date Collected: 08/06/25 15:15

Matrix: Water

Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)	RE		697828	D5VP	ELLE	09/11/25 09:11
Total/NA	Cleanup	Extract Aliquot	RE		699082	D5VP	ELLE	09/14/25 15:54
Total/NA	Analysis	537 IDA	RE	1	700134	MC7V	ELLE	09/17/25 11:41
Post-Treatment	Prep	TOP Post Prep	RA		685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot	RA		686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP	RA	1	689352	FDE4	ELLE	08/23/25 13:22
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	690817	FDE4	ELLE	08/27/25 10:59

Client Sample ID: 920025C-ADD-2

Lab Sample ID: 410-236614-8

Date Collected: 08/06/25 15:20

Matrix: Water

Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)	RA		693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot	RA		694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA	RA	1	696800	DSU6	ELLE	09/09/25 20:28
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 16:41
Post-Treatment	Prep	TOP Post Prep	RA		685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot	RA		686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP	RA	1	689352	FDE4	ELLE	08/23/25 13:49
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	690817	FDE4	ELLE	08/27/25 11:13

Client Sample ID: 920025C-EB

Lab Sample ID: 410-236614-9

Date Collected: 08/06/25 15:25

Matrix: Water

Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 16:55
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	689352	FDE4	ELLE	08/23/25 14:03

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Client Sample ID: 920025C-FB

Lab Sample ID: 410-236614-10

Date Collected: 08/06/25 15:30

Matrix: Water

Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 17:08
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	689352	FDE4	ELLE	08/23/25 14:16

Client Sample ID: 920025C-DUP

Lab Sample ID: 410-236614-11

Date Collected: 08/06/25 00:00

Matrix: Water

Date Received: 08/08/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			693534	WHU6	ELLE	09/02/25 14:38
Total/NA	Cleanup	Extract Aliquot			694861	WHU6	ELLE	09/04/25 18:16
Total/NA	Analysis	537 IDA		1	696066	R7RE	ELLE	09/08/25 17:22
Post-Treatment	Prep	TOP Post Prep			685894	S7AC	ELLE	08/15/25 06:46
Post-Treatment	Cleanup	Extract Aliquot			686500	S7AC	ELLE	08/16/25 10:50
Post-Treatment	Analysis	537 TOP		1	689352	FDE4	ELLE	08/23/25 14:30

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	EPA 537 (Mod)	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	EPA 537 (Mod)	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	EPA 537 (Mod)	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid (PFBS)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid (PFBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid (PFDS)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid (PFDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid (PFDoA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid (PFHpA)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid (PFHxA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid (PFNS)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid (PFNA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide (PFOSA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid (PFOS)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid (PFOA)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid (PFPeA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid (PFTrDA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid (PFUnA)
537 TOP	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 TOP	Fluorinated Alkyl Substances	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: A Cleaner World #206

Job ID: 410-236614-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-236614-1	920025C-WW-Pre	Water	08/06/25 14:10	08/08/25 09:40	North Carolina
410-236614-2	920025C-SPOT	Water	08/06/25 14:25	08/08/25 09:40	North Carolina
410-236614-3	920025C-Mist-Post	Water	08/06/25 14:44	08/08/25 09:40	North Carolina
410-236614-4	920025C-Mist-Pre	Water	08/06/25 14:50	08/08/25 09:40	North Carolina
410-236614-5	920025C-DET-1	Water	08/06/25 14:55	08/08/25 09:40	North Carolina
410-236614-6	920025C-DET-2	Water	08/06/25 15:00	08/08/25 09:40	North Carolina
410-236614-7	920025C-ADD-1	Water	08/06/25 15:15	08/08/25 09:40	North Carolina
410-236614-8	920025C-ADD-2	Water	08/06/25 15:20	08/08/25 09:40	North Carolina
410-236614-9	920025C-EB	Water	08/06/25 15:25	08/08/25 09:40	North Carolina
410-236614-10	920025C-FB	Water	08/06/25 15:30	08/08/25 09:40	North Carolina
410-236614-11	920025C-DUP	Water	08/06/25 00:00	08/08/25 09:40	North Carolina

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

410-236614 Chain of Custody

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Client Information	Sampler: NWS	Lab PM: Gallagher, Kelly	COC No: 410-164117-45647.1
Client Contact: Sam Martin	Phone:	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:	Analysis Requested	Job #: DSO.PFAS
Address: 2923 S Tryon Street Suite 100	Due Date Requested: Standard		Preservation Codes: N - None
City: Charlotte	TAT Requested (days):		
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No		
Phone: 704-887-4608(Tel)	PO #: DSO.PFAS		
Email: smartin@harthickman.com	WO #:		Other:
Project Name: A Cleaner World #206	Project #: 41025876		
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537_IDA_TOPS, PFC_IDA	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
DC290025 - WW-Pre	8/6/25	1410	G	Water	N		X		* Report J-Flags and report ND < MDL
DC290025 - SPOT	8/6/25	1425	G	Water	N		X		
DC290025- Mist- post	8/6/25	1444	G	Water	N		X		
DC290025- Mist- Pre	8/6/25	1450	G	Water	N		X		* NC DEQ, DSCA, HH EDDs
DC290025- DET-1	8/6/25	1455	G	Water	N		X		
DC290025- DET-2	8/6/25	1500	G	Water	N		X		
DC290025- ADD-1	8/6/25	1515	G	Water	N		X		* High level / concentrated Solvent
DC290025- ADD-2	8/6/25	1520	G	Water	N		X		
DC290025- EB	8/6/25	1525	G	Water	N		X		
DC290025- FB	8/6/25	1530	G	Water	N		X		
DC290025- Dup	8/6/25	—	G	Water	N		X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Nick Stone	Date/Time:	Company: HH	Received by: Brent Hosley	Date/Time: 8/7/25 1500	Company: Eurofins
Relinquished by: Brent Hosley	Date/Time: 8/7/25 1700	Company: Eurofins	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8/8/25 0918	Company: Fedex

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: R: 1.1 C: 1.0

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-236614-1

Login Number: 236614
List Number: 1
Creator: Onate, Maggie

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

CARRIAGE HOUSE CLEANERS

DC920051

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/14/2025 5:26:04 PM

JOB DESCRIPTION

Carriage House Cleaners (DC920051)

JOB NUMBER

410-230438-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/14/2025 5:26:04 PM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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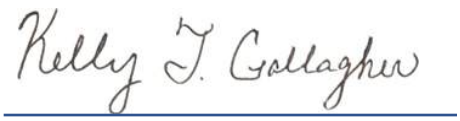


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Qualifiers

LCMS

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-230438-1 Eurofins Lancaster Laboratories Environment

Job Narrative
410-230438-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/26/2025 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.9°C and 4.8°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

PFAS
Method 1633A: The transition mass ratio for Perfluorooctanesulfonic acid (PFOS) in sample DC920051-MW-6 (410-230438-2) and DC920051-DUP (410-230438-3) in analytical batch 410-668033 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

Method 1633A: Analyte Perfluorononanoic acid (PFNA) was marked as non-detect for sample DC920051-DUP (410-230438-3) due to a detection below RL and failing ion ratio.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Client Sample ID: DC920051-MW-1S — Lab Sample ID: 410-230438-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.6		3.5	0.95	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	5.8		1.7	0.52	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	6.2		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.4		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	1.9		1.7	0.78	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	13		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.5		1.7	0.69	ng/L	1		1633A	Total/NA

Client Sample ID: DC920051-MW-6 — Lab Sample ID: 410-230438-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	35		3.4	0.93	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	96		1.7	0.51	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	82		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	89		1.7	0.68	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	110		1.7	0.76	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	1.5	J	1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	44		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.0		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	17		1.7	0.68	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.6	J	1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.3	I cn	1.7	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC920051-DUP — Lab Sample ID: 410-230438-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	35		3.5	0.96	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	100		1.7	0.52	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	79		1.7	0.44	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	91		1.7	0.70	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	100		1.7	0.78	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	44		1.7	0.44	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	17		1.7	0.70	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.7		1.7	0.44	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.1	I cn	1.7	1.1	ng/L	1		1633A	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.3	J	1.7	1.2	ng/L	1		1633A	Total/NA

Client Sample ID: DC920051-FB — Lab Sample ID: 410-230438-4

No Detections.

Client Sample ID: DC920051-EB — Lab Sample ID: 410-230438-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Client Sample ID: DC920051-MW-1S
Lab Sample ID: 410-230438-1
Date Collected: 06/24/25 09:10
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.6**		3.5	0.95	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluoropentanoic acid (PFPeA)	**5.8**		1.7	0.52	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorohexanoic acid (PFHxA)	**6.2**		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluoroheptanoic acid (PFHpA)	**5.4**		1.7	0.69	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorooctanoic acid (PFOA)	**1.9**		1.7	0.78	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorobutanesulfonic acid (PFBS)	**13**		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorohexanesulfonic acid (PFHxS)	**4.5**		1.7	0.69	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.1	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.52	ng/L		07/04/25 06:18	07/08/25 14:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.86	ng/L		07/04/25 06:18	07/08/25 14:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	0.86	ng/L		07/04/25 06:18	07/08/25 14:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.86	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.6	2.2	ng/L		07/04/25 06:18	07/08/25 14:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.6	3.5	ng/L		07/04/25 06:18	07/08/25 14:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/04/25 06:18	07/08/25 14:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1

Client Sample ID: DC920051-MW-1S
Lab Sample ID: 410-230438-1
Date Collected: 06/24/25 09:10
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 14:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.86	ng/L		07/04/25 06:18	07/08/25 14:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.6	2.4	ng/L		07/04/25 06:18	07/08/25 14:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.6	2.2	ng/L		07/04/25 06:18	07/08/25 14:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.2*		*5 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C5 PFPeA	*103*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C5 PFHxA	*95.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C4 PFHpA	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C8 PFOA	*91.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C9 PFNA	*89.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C6 PFDA	*93.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C7 PFUnA	*87.8*		*30 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C2 PFTeDA	*86.9*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C3 PFBS	*92.6*		*40 - 135*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C3 PFHxS	*93.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C8 PFOS	*90.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C8 FOSA	*75.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
d3-NMeFOSAA	*80.3*		*40 - 170*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
d5-NEtFOSAA	*80.7*		*25 - 135*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C2 4:2 FTS	*90.7*		*40 - 200*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C2 6:2 FTS	*93.9*		*40 - 200*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C2 8:2 FTS	*89.4*		*40 - 300*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C3 HFPO-DA	*99.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
d7-N-MeFOSE-M	*70.1*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
d9-N-EtFOSE-M	*73.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
d5-NEtPFOSA	*69.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
d3-NMePFOSA	*70.5*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*
13C2 PFDoA	*89.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:20*	*1*

Client Sample ID: DC920051-MW-6
Lab Sample ID: 410-230438-2
Date Collected: 06/24/25 11:04
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**35**		3.4	0.93	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluoropentanoic acid (PFPeA)	**96**		1.7	0.51	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorohexanoic acid (PFHxA)	**82**		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluoroheptanoic acid (PFHpA)	**89**		1.7	0.68	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorooctanoic acid (PFOA)	**110**		1.7	0.76	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorononanoic acid (PFNA)	**1.5**	**J**	1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Client Sample ID: DC920051-MW-6
Lab Sample ID: 410-230438-2
Date Collected: 06/24/25 11:04
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorobutanesulfonic acid (PFBS)	**44**		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluoropentanesulfonic acid (PFPeS)	**2.0**		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorohexanesulfonic acid (PFHxS)	**17**		1.7	0.68	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluoroheptanesulfonic acid (PFHpS)	**1.6**	**J**	1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorooctanesulfonic acid (PFOS)	**6.3**	**l cn**	1.7	1.1	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.51	ng/L		07/04/25 06:18	07/08/25 14:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.4	0.85	ng/L		07/04/25 06:18	07/08/25 14:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.4	0.85	ng/L		07/04/25 06:18	07/08/25 14:33	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.4	0.85	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.5	2.1	ng/L		07/04/25 06:18	07/08/25 14:33	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.5	3.4	ng/L		07/04/25 06:18	07/08/25 14:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/04/25 06:18	07/08/25 14:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 14:33	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.4	0.85	ng/L		07/04/25 06:18	07/08/25 14:33	1

Client Sample ID: DC920051-MW-6
Lab Sample ID: 410-230438-2
Date Collected: 06/24/25 11:04
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.5	2.4	ng/L		07/04/25 06:18	07/08/25 14:33	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.5	2.1	ng/L		07/04/25 06:18	07/08/25 14:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.7*		*5 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C5 PFPeA	*89.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C5 PFHxA	*80.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C4 PFHpA	*86.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C8 PFOA	*84.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C9 PFNA	*85.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C6 PFDA	*85.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C7 PFUnA	*84.3*		*30 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C2 PFTeDA	*83.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C3 PFBS	*85.7*		*40 - 135*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C3 PFHxS	*86.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C8 PFOS	*87.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C8 FOSA	*75.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
d3-NMeFOSAA	*81.6*		*40 - 170*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
d5-NEtFOSAA	*76.2*		*25 - 135*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C2 4:2 FTS	*81.0*		*40 - 200*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C2 6:2 FTS	*85.1*		*40 - 200*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C2 8:2 FTS	*80.2*		*40 - 300*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C3 HFPO-DA	*92.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
d7-N-MeFOSE-M	*69.8*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
d9-N-EtFOSE-M	*68.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
d5-NEtPFOSA	*71.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
d3-NMePFOSA	*72.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*
13C2 PFDoA	*87.5*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:33*	*1*

Client Sample ID: DC920051-DUP
Lab Sample ID: 410-230438-3
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**35**		3.5	0.96	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluoropentanoic acid (PFPeA)	**100**		1.7	0.52	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorohexanoic acid (PFHxA)	**79**		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluoroheptanoic acid (PFHpA)	**91**		1.7	0.70	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorooctanoic acid (PFOA)	**100**		1.7	0.78	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorononanoic acid (PFNA)	ND	cn	1.7	1.7	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorobutanesulfonic acid (PFBS)	**44**		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1

Client Sample ID: DC920051-DUP
Lab Sample ID: 410-230438-3
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**17**		1.7	0.70	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluoroheptanesulfonic acid (PFHpS)	**1.7**		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorooctanesulfonic acid (PFOS)	**6.1**	**I cn**	1.7	1.1	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.52	ng/L		07/04/25 06:18	07/08/25 14:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.87	ng/L		07/04/25 06:18	07/08/25 14:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	0.87	ng/L		07/04/25 06:18	07/08/25 14:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.87	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.7	2.2	ng/L		07/04/25 06:18	07/08/25 14:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.7	3.5	ng/L		07/04/25 06:18	07/08/25 14:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	**1.3**	**J**	1.7	1.2	ng/L		07/04/25 06:18	07/08/25 14:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.44	ng/L		07/04/25 06:18	07/08/25 14:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.87	ng/L		07/04/25 06:18	07/08/25 14:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.7	2.4	ng/L		07/04/25 06:18	07/08/25 14:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.7	2.2	ng/L		07/04/25 06:18	07/08/25 14:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*5 - 130*	*07/04/25 06:18*	*07/08/25 14:47*	*1*
13C5 PFPeA	*98.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:47*	*1*
13C5 PFHxA	*90.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:47*	*1*

Client Sample ID: DC920051-DUP
Lab Sample ID: 410-230438-3
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	91.3		40 - 130	07/04/25 06:18	07/08/25 14:47	1
13C8 PFOA	94.1		40 - 130	07/04/25 06:18	07/08/25 14:47	1
13C9 PFNA	98.2		40 - 130	07/04/25 06:18	07/08/25 14:47	1
13C6 PFDA	93.4		40 - 130	07/04/25 06:18	07/08/25 14:47	1
13C7 PFUnA	100		30 - 130	07/04/25 06:18	07/08/25 14:47	1
13C2 PFTeDA	84.0		10 - 130	07/04/25 06:18	07/08/25 14:47	1
13C3 PFBS	96.7		40 - 135	07/04/25 06:18	07/08/25 14:47	1
13C3 PFHxS	96.3		40 - 130	07/04/25 06:18	07/08/25 14:47	1
13C8 PFOS	100		40 - 130	07/04/25 06:18	07/08/25 14:47	1
13C8 FOSA	84.3		40 - 130	07/04/25 06:18	07/08/25 14:47	1
d3-NMeFOSAA	88.9		40 - 170	07/04/25 06:18	07/08/25 14:47	1
d5-NEtFOSAA	81.3		25 - 135	07/04/25 06:18	07/08/25 14:47	1
13C2 4:2 FTS	91.8		40 - 200	07/04/25 06:18	07/08/25 14:47	1
13C2 6:2 FTS	98.1		40 - 200	07/04/25 06:18	07/08/25 14:47	1
13C2 8:2 FTS	90.0		40 - 300	07/04/25 06:18	07/08/25 14:47	1
13C3 HFPO-DA	94.4		40 - 130	07/04/25 06:18	07/08/25 14:47	1
d7-N-MeFOSE-M	71.8		10 - 130	07/04/25 06:18	07/08/25 14:47	1
d9-N-EtFOSE-M	67.0		10 - 130	07/04/25 06:18	07/08/25 14:47	1
d5-NEtPFOSA	75.5		10 - 130	07/04/25 06:18	07/08/25 14:47	1
d3-NMePFOSA	79.3		10 - 130	07/04/25 06:18	07/08/25 14:47	1
13C2 PFDoA	89.2		10 - 130	07/04/25 06:18	07/08/25 14:47	1

Client Sample ID: DC920051-FB
Lab Sample ID: 410-230438-4
Date Collected: 06/24/25 11:20
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1	0.86	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.47	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.62	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.70	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.62	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		07/04/25 06:18	07/08/25 15:00	1

Client Sample ID: DC920051-FB
Lab Sample ID: 410-230438-4
Date Collected: 06/24/25 11:20
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 15:00	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 15:00	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	1.9	ng/L		07/04/25 06:18	07/08/25 15:00	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	3.1	ng/L		07/04/25 06:18	07/08/25 15:00	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/04/25 06:18	07/08/25 15:00	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 15:00	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 15:00	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.8	2.2	ng/L		07/04/25 06:18	07/08/25 15:00	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	1.9	ng/L		07/04/25 06:18	07/08/25 15:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*104*		*5 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C5 PFPeA	*108*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C5 PFHxA	*97.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C4 PFHpA	*105*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C8 PFOA	*94.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C9 PFNA	*108*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C6 PFDA	*98.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C7 PFUnA	*93.9*		*30 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C2 PFTeDA	*86.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C3 PFBS	*97.4*		*40 - 135*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C3 PFHxS	*97.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*
13C8 PFOS	*97.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:00*	*1*

Client Sample ID: DC920051-FB
Lab Sample ID: 410-230438-4
Date Collected: 06/24/25 11:20
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	82.7		40 - 130	07/04/25 06:18	07/08/25 15:00	1
d3-NMeFOSAA	87.4		40 - 170	07/04/25 06:18	07/08/25 15:00	1
d5-NEtFOSAA	80.7		25 - 135	07/04/25 06:18	07/08/25 15:00	1
13C2 4:2 FTS	94.4		40 - 200	07/04/25 06:18	07/08/25 15:00	1
13C2 6:2 FTS	98.0		40 - 200	07/04/25 06:18	07/08/25 15:00	1
13C2 8:2 FTS	92.9		40 - 300	07/04/25 06:18	07/08/25 15:00	1
13C3 HFPO-DA	102		40 - 130	07/04/25 06:18	07/08/25 15:00	1
d7-N-MeFOSE-M	72.9		10 - 130	07/04/25 06:18	07/08/25 15:00	1
d9-N-EtFOSE-M	74.5		10 - 130	07/04/25 06:18	07/08/25 15:00	1
d5-NEtPFOSA	72.8		10 - 130	07/04/25 06:18	07/08/25 15:00	1
d3-NMePFOSA	77.9		10 - 130	07/04/25 06:18	07/08/25 15:00	1
13C2 PFDoA	94.6		10 - 130	07/04/25 06:18	07/08/25 15:00	1

Client Sample ID: DC920051-EB
Lab Sample ID: 410-230438-5
Date Collected: 06/24/25 11:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1	0.84	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.46	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.61	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.69	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.61	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	1.0	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.46	ng/L		07/04/25 06:18	07/08/25 15:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 15:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 15:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1

Client Sample ID: DC920051-EB
Lab Sample ID: 410-230438-5
Date Collected: 06/24/25 11:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.7	1.9	ng/L		07/04/25 06:18	07/08/25 15:14	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.7	3.1	ng/L		07/04/25 06:18	07/08/25 15:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/04/25 06:18	07/08/25 15:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 15:14	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 15:14	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.7	2.1	ng/L		07/04/25 06:18	07/08/25 15:14	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.7	1.9	ng/L		07/04/25 06:18	07/08/25 15:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.7*		*5 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C5 PFPeA	*94.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C5 PFHxA	*91.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C4 PFHpA	*94.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C8 PFOA	*100*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C9 PFNA	*99.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C6 PFDA	*93.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C7 PFUnA	*90.3*		*30 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C2 PFTeDA	*82.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C3 PFBS	*92.9*		*40 - 135*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C3 PFHxS	*93.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C8 PFOS	*96.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C8 FOSA	*81.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
d3-NMeFOSAA	*83.4*		*40 - 170*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
d5-NEtFOSAA	*82.4*		*25 - 135*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C2 4:2 FTS	*86.0*		*40 - 200*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C2 6:2 FTS	*91.0*		*40 - 200*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C2 8:2 FTS	*89.1*		*40 - 300*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
13C3 HFPO-DA	*90.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
d7-N-MeFOSE-M	*64.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
d9-N-EtFOSE-M	*62.8*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*
d5-NEtPFOSA	*70.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:14*	*1*

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Client Sample ID: DC920051-EB
Lab Sample ID: 410-230438-5
Date Collected: 06/24/25 11:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMePFOSA	72.2		10 - 130	07/04/25 06:18	07/08/25 15:14	1
13C2 PFDoA	83.7		10 - 130	07/04/25 06:18	07/08/25 15:14	1

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-230438-1	DC920051-MW-1S	94.2	103	95.1	101	91.8	89.5	93.6	87.8
410-230438-2	DC920051-MW-6	92.7	89.8	80.2	86.7	84.3	85.1	85.7	84.3
410-230438-3	DC920051-DUP	100	98.1	90.8	91.3	94.1	98.2	93.4	100
410-230438-4	DC920051-FB	104	108	97.3	105	94.7	108	98.7	93.9
410-230438-5	DC920051-EB	98.7	94.8	91.3	94.1	100	99.2	93.5	90.3
LCS 410-667147/15-A	Lab Control Sample	103	103	95.0	98.9	97.4	96.7	93.1	96.3
LCSD 410-667147/17-A	Lab Control Sample Dup	100	110	105	106	109	107	104	101
LLCS 410-667147/16-A	Lab Control Sample	105	104	95.8	103	97.5	100	98.7	95.8
MB 410-667147/14-A	Method Blank	99.1	99.6	87.5	78.1	77.2	75.3	73.7	69.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-230438-1	DC920051-MW-1S	86.9	92.6	93.7	90.0	75.9	80.3	80.7	90.7
410-230438-2	DC920051-MW-6	83.7	85.7	86.3	87.6	75.9	81.6	76.2	81.0
410-230438-3	DC920051-DUP	84.0	96.7	96.3	100	84.3	88.9	81.3	91.8
410-230438-4	DC920051-FB	86.4	97.4	97.9	97.1	82.7	87.4	80.7	94.4
410-230438-5	DC920051-EB	82.7	92.9	93.5	96.5	81.7	83.4	82.4	86.0
LCS 410-667147/15-A	Lab Control Sample	80.0	102	93.5	93.5	85.8	90.2	87.2	97.7
LCSD 410-667147/17-A	Lab Control Sample Dup	104	99.0	100	103	86.2	94.3	92.0	93.5
LLCS 410-667147/16-A	Lab Control Sample	80.6	97.8	98.1	97.2	87.4	91.5	87.1	99.8
MB 410-667147/14-A	Method Blank	45.0	70.5	70.1	72.8	80.7	66.9	65.0	92.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-230438-1	DC920051-MW-1S	93.9	89.4	99.3	70.1	73.7	69.6	70.5	89.3
410-230438-2	DC920051-MW-6	85.1	80.2	92.4	69.8	68.0	71.4	72.4	87.5
410-230438-3	DC920051-DUP	98.1	90.0	94.4	71.8	67.0	75.5	79.3	89.2
410-230438-4	DC920051-FB	98.0	92.9	102	72.9	74.5	72.8	77.9	94.6
410-230438-5	DC920051-EB	91.0	89.1	90.0	64.4	62.8	70.2	72.2	83.7
LCS 410-667147/15-A	Lab Control Sample	97.8	89.1	99.8	73.7	69.7	77.5	76.4	86.3
LCSD 410-667147/17-A	Lab Control Sample Dup	96.9	94.4	105	70.0	65.2	83.3	81.2	104
LLCS 410-667147/16-A	Lab Control Sample	101	97.4	103	62.2	56.7	76.9	77.3	92.7
MB 410-667147/14-A	Method Blank	83.2	70.4	95.2	53.6	48.0	65.4	72.5	71.3

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-667147/14-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/04/25 06:18	07/08/25 09:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-667147/14-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/04/25 06:18	07/08/25 09:20	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.1*		*5 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C5 PFPeA	*99.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C5 PFHxA	*87.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C4 PFHpA	*78.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 PFOA	*77.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C9 PFNA	*75.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C6 PFDA	*73.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C7 PFUnA	*69.1*		*30 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 PFTeDA	*45.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 PFBS	*70.5*		*40 - 135*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 PFHxS	*70.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 PFOS	*72.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 FOSA	*80.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d3-NMeFOSAA	*66.9*		*40 - 170*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d5-NEtFOSAA	*65.0*		*25 - 135*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 4:2 FTS	*92.5*		*40 - 200*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 6:2 FTS	*83.2*		*40 - 200*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 8:2 FTS	*70.4*		*40 - 300*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 HFPO-DA	*95.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d7-N-MeFOSE-M	*53.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d9-N-EtFOSE-M	*48.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d5-NEtPFOSA	*65.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d3-NMePFOSA	*72.5*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 PFDoA	*71.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	69.3		ng/L		87	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	34.4		ng/L		86	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	32.7		ng/L		82	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	32.1		ng/L		80	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	32.7		ng/L		82	70 - 150
Perfluorononanoic acid (PFNA)	40.0	30.7		ng/L		77	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	35.8		ng/L		89	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	30.7		ng/L		77	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	38.3		ng/L		96	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	31.8		ng/L		80	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.8		ng/L		77	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	27.1		ng/L		76	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	31.9		ng/L		85	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	29.2		ng/L		80	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	32.9		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	30.2		ng/L		81	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	30.2		ng/L		78	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	29.6		ng/L		77	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	24.0		ng/L		62	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	62.8		ng/L		84	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	66.4		ng/L		87	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	69.9		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	36.2		ng/L		91	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	33.8		ng/L		84	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.6		ng/L		84	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	31.7		ng/L		79	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.7		ng/L		84	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	180		ng/L		90	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	176		ng/L		88	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.0		ng/L		87	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	30.9		ng/L		82	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.1		ng/L		95	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.0		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.5		ng/L		81	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	29.6		ng/L		79	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	27.1		ng/L		72	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	32.6		ng/L		92	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	68.4		ng/L		86	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	158		ng/L		79	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	164		ng/L		82	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*103*		*5 - 130*
13C5 PFPeA	*103*		*40 - 130*
13C5 PFHxA	*95.0*		*40 - 130*
13C4 PFHpA	*98.9*		*40 - 130*
13C8 PFOA	*97.4*		*40 - 130*
13C9 PFNA	*96.7*		*40 - 130*
13C6 PFDA	*93.1*		*40 - 130*
13C7 PFUnA	*96.3*		*30 - 130*
13C2 PFTeDA	*80.0*		*10 - 130*
13C3 PFBS	*102*		*40 - 135*
13C3 PFHxS	*93.5*		*40 - 130*
13C8 PFOS	*93.5*		*40 - 130*
13C8 FOSA	*85.8*		*40 - 130*
d3-NMeFOSAA	*90.2*		*40 - 170*
d5-NEtFOSAA	*87.2*		*25 - 135*
13C2 4:2 FTS	*97.7*		*40 - 200*
13C2 6:2 FTS	*97.8*		*40 - 200*
13C2 8:2 FTS	*89.1*		*40 - 300*
13C3 HFPO-DA	*99.8*		*40 - 130*
d7-N-MeFOSE-M	*73.7*		*10 - 130*
d9-N-EtFOSE-M	*69.7*		*10 - 130*
d5-NEtPFOSA	*77.5*		*10 - 130*
d3-NMePFOSA	*76.4*		*10 - 130*
13C2 PFDoA	*86.3*		*10 - 130*

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	69.6		ng/L		87	70 - 140	0	30
Perfluoropentanoic acid (PFPeA)			40.0	34.5		ng/L		86	65 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	31.5		ng/L		79	70 - 145	4	30
Perfluoroheptanoic acid (PFHpA)			40.0	32.0		ng/L		80	70 - 150	1	30
Perfluorooctanoic acid (PFOA)			40.0	32.7		ng/L		82	70 - 150	0	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	33.4		ng/L		84	70 - 150	8	30
Perfluorodecanoic acid (PFDA)	40.0	35.5		ng/L		89	70 - 140	1	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.1		ng/L		93	70 - 145	19	30
Perfluorododecanoic acid (PFDoA)	40.0	35.2		ng/L		88	70 - 140	8	30
Perfluorotridecanoic acid (PFTrDA)	40.0	34.0		ng/L		85	65 - 140	7	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	28.1		ng/L		70	60 - 140	9	30
Perfluorobutanesulfonic acid (PFBS)	35.5	30.8		ng/L		87	60 - 145	13	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	30.1		ng/L		80	65 - 140	6	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	28.4		ng/L		78	65 - 145	3	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.3		ng/L		87	70 - 150	1	30
Perfluorooctanesulfonic acid (PFOS)	37.2	31.7		ng/L		85	55 - 150	5	30
Perfluorononanesulfonic acid (PFNS)	38.5	30.9		ng/L		80	65 - 145	2	30
Perfluorodecanesulfonic acid (PFDS)	38.6	31.1		ng/L		81	60 - 145	5	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	30.0		ng/L		77	50 - 145	22	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	67.7		ng/L		90	70 - 145	7	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	68.8		ng/L		90	65 - 155	4	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	70.1		ng/L		91	60 - 150	0	30
Perfluorooctanesulfonamide (PFOSA)	40.0	39.3		ng/L		98	70 - 145	8	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	35.9		ng/L		90	60 - 150	6	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	35.8		ng/L		90	65 - 145	7	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	33.4		ng/L		84	50 - 140	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.5		ng/L		91	70 - 145	8	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	181		ng/L		90	70 - 145	0	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	178		ng/L		89	70 - 135	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.8		ng/L		89	70 - 140	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	30.7		ng/L		81	65 - 145	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	36.9		ng/L		92	55 - 140	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.4		ng/L		81	60 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	36.8		ng/L		92	50 - 150	12	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	29.7		ng/L		79	70 - 155	0	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	28.6		ng/L		76	55 - 160	5	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	31.2		ng/L		87	70 - 140	4	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	67.5		ng/L		84	65 - 130	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	165		ng/L		82	70 - 135	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	150		ng/L		75	50 - 145	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*100*		*5 - 130*
13C5 PFPeA	*110*		*40 - 130*
13C5 PFHxA	*105*		*40 - 130*
13C4 PFHpA	*106*		*40 - 130*
13C8 PFOA	*109*		*40 - 130*
13C9 PFNA	*107*		*40 - 130*
13C6 PFDA	*104*		*40 - 130*
13C7 PFUnA	*101*		*30 - 130*
13C2 PFTeDA	*104*		*10 - 130*
13C3 PFBS	*99.0*		*40 - 135*
13C3 PFHxS	*100*		*40 - 130*
13C8 PFOS	*103*		*40 - 130*
13C8 FOSA	*86.2*		*40 - 130*
d3-NMeFOSAA	*94.3*		*40 - 170*
d5-NEtFOSAA	*92.0*		*25 - 135*
13C2 4:2 FTS	*93.5*		*40 - 200*
13C2 6:2 FTS	*96.9*		*40 - 200*
13C2 8:2 FTS	*94.4*		*40 - 300*
13C3 HFPO-DA	*105*		*40 - 130*
d7-N-MeFOSE-M	*70.0*		*10 - 130*
d9-N-EtFOSE-M	*65.2*		*10 - 130*
d5-NEtPFOSA	*83.3*		*10 - 130*
d3-NMePFOSA	*81.2*		*10 - 130*
13C2 PFDoA	*104*		*10 - 130*

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	7.14		ng/L		89	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.03		ng/L		101	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	3.66		ng/L		92	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.30		ng/L		82	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.74		ng/L		94	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.35		ng/L		84	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.99		ng/L		100	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.40		ng/L		85	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.96		ng/L		99	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.87		ng/L		97	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.78		ng/L		95	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.95		ng/L		83	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.49		ng/L		93	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.40		ng/L		93	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.37		ng/L		88	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.42		ng/L		92	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.04		ng/L		79	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.16		ng/L		82	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.58		ng/L		66	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.79		ng/L		90	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.04		ng/L		92	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.07		ng/L		92	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.01		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.58		ng/L		90	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.57		ng/L		89	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.30		ng/L		82	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.54		ng/L		89	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	20.6		ng/L		103	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.2		ng/L		96	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.94		ng/L		98	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.15		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.88		ng/L		97	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro-4-methoxybutanoic acid (PFMBA)			4.00	3.48		ng/L		87	60 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			4.00	4.10		ng/L		103	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			3.74	2.97		ng/L		79	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			3.78	2.86		ng/L		76	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			3.57	3.45		ng/L		97	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			8.00	8.04		ng/L		101	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			20.0	18.4		ng/L		92	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			20.0	16.9		ng/L		84	50 - 145		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*95.8*		*40 - 130*
13C4 PFHpA	*103*		*40 - 130*
13C8 PFOA	*97.5*		*40 - 130*
13C9 PFNA	*100*		*40 - 130*
13C6 PFDA	*98.7*		*40 - 130*
13C7 PFUnA	*95.8*		*30 - 130*
13C2 PFTeDA	*80.6*		*10 - 130*
13C3 PFBS	*97.8*		*40 - 135*
13C3 PFHxS	*98.1*		*40 - 130*
13C8 PFOS	*97.2*		*40 - 130*
13C8 FOSA	*87.4*		*40 - 130*
d3-NMeFOSAA	*91.5*		*40 - 170*
d5-NEtFOSAA	*87.1*		*25 - 135*
13C2 4:2 FTS	*99.8*		*40 - 200*
13C2 6:2 FTS	*101*		*40 - 200*
13C2 8:2 FTS	*97.4*		*40 - 300*
13C3 HFPO-DA	*103*		*40 - 130*
d7-N-MeFOSE-M	*62.2*		*10 - 130*
d9-N-EtFOSE-M	*56.7*		*10 - 130*
d5-NEtPFOSA	*76.9*		*10 - 130*
d3-NMePFOSA	*77.3*		*10 - 130*
13C2 PFDoA	*92.7*		*10 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

LCMS

Prep Batch: 667147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230438-1	DC920051-MW-1S	Total/NA	Water	1633A	
410-230438-2	DC920051-MW-6	Total/NA	Water	1633A	
410-230438-3	DC920051-DUP	Total/NA	Water	1633A	
410-230438-4	DC920051-FB	Total/NA	Water	1633A	
410-230438-5	DC920051-EB	Total/NA	Water	1633A	
MB 410-667147/14-A	Method Blank	Total/NA	Water	1633A	
LCS 410-667147/15-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-667147/17-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-667147/16-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 668033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230438-1	DC920051-MW-1S	Total/NA	Water	1633A	667147
410-230438-2	DC920051-MW-6	Total/NA	Water	1633A	667147
410-230438-3	DC920051-DUP	Total/NA	Water	1633A	667147
410-230438-4	DC920051-FB	Total/NA	Water	1633A	667147
410-230438-5	DC920051-EB	Total/NA	Water	1633A	667147
MB 410-667147/14-A	Method Blank	Total/NA	Water	1633A	667147
LCS 410-667147/15-A	Lab Control Sample	Total/NA	Water	1633A	667147
LCSD 410-667147/17-A	Lab Control Sample Dup	Total/NA	Water	1633A	667147
LLCS 410-667147/16-A	Lab Control Sample	Total/NA	Water	1633A	667147

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Client Sample ID: DC920051-MW-1S
Lab Sample ID: 410-230438-1
Date Collected: 06/24/25 09:10
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 14:20

Client Sample ID: DC920051-MW-6
Lab Sample ID: 410-230438-2
Date Collected: 06/24/25 11:04
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 14:33

Client Sample ID: DC920051-DUP
Lab Sample ID: 410-230438-3
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 14:47

Client Sample ID: DC920051-FB
Lab Sample ID: 410-230438-4
Date Collected: 06/24/25 11:20
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 15:00

Client Sample ID: DC920051-EB
Lab Sample ID: 410-230438-5
Date Collected: 06/24/25 11:15
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 15:14

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Job ID: 410-230438-1
Project/Site: Carriage House Cleaners (DC920051)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-230438-1	DC920051-MW-1S	Water	06/24/25 09:10	06/26/25 10:15
410-230438-2	DC920051-MW-6	Water	06/24/25 11:04	06/26/25 10:15
410-230438-3	DC920051-DUP	Water	06/24/25 00:00	06/26/25 10:15
410-230438-4	DC920051-FB	Water	06/24/25 11:20	06/26/25 10:15
410-230438-5	DC920051-EB	Water	06/24/25 11:15	06/26/25 10:15

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Chain of Custody Record

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410-230438 Chain of Custody

	Sampler: Nick Stone & Rachel Schmidt	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159680-44156 1
Mandy Klaben	Phone: 919-847-4241	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #: DSO.PFAS-3
Address: 3921 Sunset Ridge Rd Suite 301	Due Date Requested:			Preservation Codes: N - None
City: Raleigh	TAT Requested (days): H+H Standard (10 days)			
State, Zip: NC, 27607	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DSO.PFAS			
Email: mklaben@harthickman.com	WO #:			
Project Name: Carriage House Cleaners (DC920051)	Project #: 41025876			Other:
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC920051-MW-1S	6/24/25	0910	G	Water	N	N	X	X	3	*Please report J flags
DC920051-MW-6	6/24/25	1104	G	Water	N	N	X	X	3	& report non-detects
DC920051-DUP	6/24/25		G	Water	N	N		X	2	as <MDL
		1120		Water						* EDD formats: H+H,
DC920051-FB	6/24/25	~~1120~~ RES	G	Water	N	N		X	2	DSCA, NCDEQ
DC920051-EB	6/24/25	1115	G	Water	N	N		X	2	*Hold TOPs analysis
										until further notice*

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by: Rachel Schmidt	Date/Time: 6/24/25 1630	Company	Received by: Brent Nadler	Date/Time: 6/25/25 1453	Company: Eurofins	
Relinquished by: Brent Nadler	Date/Time: 6/25/25 1645	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/26/25 10:15	Company: ELOT	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.9-4.8 C 3.9--4.4

I-M

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-230438-1

Login Number: 230438
List Number: 1
Creator: Leakway, Christian

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

DELUXE CLEANERS

DC330005

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/16/2025 8:38:41 PM

JOB DESCRIPTION

Deluxe Cleaners (ATC Site) (DC330005)

JOB NUMBER

410-229248-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/16/2025 8:38:41 PM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

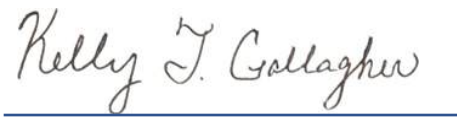


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-229248-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/25/2025 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received. The COC is missing Number of containers per sample. This does not meet regulatory requirements.

PFAS
Method 1633A: The transition mass ratio for Perfluorooctanesulfonic acid (PFOS) in sample DC330005-MW-6 (410-229248-1) in analytical batch 410-667686 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

Method 1633A: Extracted internal standard d9-N-EtFOSE-M recoveries were outside QC acceptance criteria in sample DC330005-MW-1 (410-229248-2). The recoveries were greater than or equal to 5% and the signal to noise was greater than 10:1, therefore, the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Client Sample ID: DC330005-MW-6
Lab Sample ID: 410-229248-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	44		3.5	0.97	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	76		1.8	0.53	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	120		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	82		1.8	0.71	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	320		1.8	0.79	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	4.1		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	29		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	30		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	170		1.8	0.71	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	7.2		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	110	I cn	1.8	1.1	ng/L	1		1633A	Total/NA
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	5.1		3.5	0.88	ng/L	1		1633A	Total/NA

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	38		3.5	0.95	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	47		1.7	0.52	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	62		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	78		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	270		1.7	0.78	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	26		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorodecanoic acid (PFDA)	8.0		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	10		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	6.0		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	25		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	6.1		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	550		1.7	1.1	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonamide (PFOSA)	8.6		1.7	0.43	ng/L	1		1633A	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	13		1.7	0.43	ng/L	1		1633A	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	9.9		1.7	0.43	ng/L	1		1633A	Total/NA

Client Sample ID: DC330005-DUP
Lab Sample ID: 410-229248-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	40		3.7	1.0	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	47		1.9	0.56	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	61		1.9	0.47	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	76		1.9	0.75	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	270		1.9	0.84	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	26		1.9	0.47	ng/L	1		1633A	Total/NA
Perfluorodecanoic acid (PFDA)	8.5		1.9	0.47	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.8		1.9	0.47	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	6.7		1.9	0.47	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	27		1.9	0.75	ng/L	1		1633A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DC330005-DUP (Continued)
Lab Sample ID: 410-229248-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS)	6.7		1.9	0.47	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	540		1.9	1.2	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonamide (PFOSA)	8.0		1.9	0.47	ng/L	1		1633A	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12		1.9	0.47	ng/L	1		1633A	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	8.7		1.9	0.47	ng/L	1		1633A	Total/NA

Client Sample ID: DC330005-FB
Lab Sample ID: 410-229248-4

No Detections.

Client Sample ID: DC330005-EB
Lab Sample ID: 410-229248-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Client Sample ID: DC330005-MW-6
Lab Sample ID: 410-229248-1
Date Collected: 06/23/25 10:23
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**44**		3.5	0.97	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluoropentanoic acid (PFPeA)	**76**		1.8	0.53	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorohexanoic acid (PFHxA)	**120**		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluoroheptanoic acid (PFHpA)	**82**		1.8	0.71	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorooctanoic acid (PFOA)	**320**		1.8	0.79	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorononanoic acid (PFNA)	**4.1**		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorobutanesulfonic acid (PFBS)	**29**		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluoropentanesulfonic acid (PFPeS)	**30**		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorohexanesulfonic acid (PFHxS)	**170**		1.8	0.71	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluoroheptanesulfonic acid (PFHpS)	**7.2**		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorooctanesulfonic acid (PFOS)	**110**	**l cn**	1.8	1.1	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	0.53	ng/L		07/01/25 08:11	07/08/25 12:57	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.88	ng/L		07/01/25 08:11	07/08/25 12:57	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**5.1**		3.5	0.88	ng/L		07/01/25 08:11	07/08/25 12:57	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.88	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.8	2.2	ng/L		07/01/25 08:11	07/08/25 12:57	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.8	3.5	ng/L		07/01/25 08:11	07/08/25 12:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.8	1.2	ng/L		07/01/25 08:11	07/08/25 12:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1

Client Sample ID: DC330005-MW-6
Lab Sample ID: 410-229248-1
Date Collected: 06/23/25 10:23
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	0.44	ng/L		07/01/25 08:11	07/08/25 12:57	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.88	ng/L		07/01/25 08:11	07/08/25 12:57	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.8	2.5	ng/L		07/01/25 08:11	07/08/25 12:57	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.8	2.2	ng/L		07/01/25 08:11	07/08/25 12:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.7*		*5 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C5 PFPeA	*92.2*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C5 PFHxA	*85.8*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C4 PFHpA	*101*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C8 PFOA	*90.0*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C9 PFNA	*97.7*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C6 PFDA	*92.6*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C7 PFUnA	*78.4*		*30 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C2 PFTeDA	*69.7*		*10 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C3 PFBS	*97.0*		*40 - 135*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C3 PFHxS	*101*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C8 PFOS	*105*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C8 FOSA	*93.2*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
d3-NMeFOSAA	*106*		*40 - 170*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
d5-NEtFOSAA	*102*		*25 - 135*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C2 4:2 FTS	*87.4*		*40 - 200*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C2 6:2 FTS	*93.6*		*40 - 200*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C2 8:2 FTS	*83.1*		*40 - 300*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C3 HFPO-DA	*77.6*		*40 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
d7-N-MeFOSE-M	*58.3*		*10 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
d9-N-EtFOSE-M	*41.7*		*10 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
d5-NEtPFOSA	*83.2*		*10 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
d3-NMePFOSA	*83.7*		*10 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*
13C2 PFDoA	*79.0*		*10 - 130*	*07/01/25 08:11*	*07/08/25 12:57*	*1*

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2
Date Collected: 06/23/25 11:05
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**38**		3.5	0.95	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluoropentanoic acid (PFPeA)	**47**		1.7	0.52	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorohexanoic acid (PFHxA)	**62**		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluoroheptanoic acid (PFHpA)	**78**		1.7	0.69	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorooctanoic acid (PFOA)	**270**		1.7	0.78	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorononanoic acid (PFNA)	**26**		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorodecanoic acid (PFDA)	**8.0**		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2
Date Collected: 06/23/25 11:05
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorobutanesulfonic acid (PFBS)	**10**		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluoropentanesulfonic acid (PFPeS)	**6.0**		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorohexanesulfonic acid (PFHxS)	**25**		1.7	0.69	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluoroheptanesulfonic acid (PFHpS)	**6.1**		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorooctanesulfonic acid (PFOS)	**550**		1.7	1.1	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.52	ng/L		07/01/25 08:11	07/08/25 13:10	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.87	ng/L		07/01/25 08:11	07/08/25 13:10	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	0.87	ng/L		07/01/25 08:11	07/08/25 13:10	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.87	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluorooctanesulfonamide (PFOSA)	**8.6**		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**13**		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**9.9**		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.7	2.2	ng/L		07/01/25 08:11	07/08/25 13:10	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.7	3.5	ng/L		07/01/25 08:11	07/08/25 13:10	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/01/25 08:11	07/08/25 13:10	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.43	ng/L		07/01/25 08:11	07/08/25 13:10	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.87	ng/L		07/01/25 08:11	07/08/25 13:10	1

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2
Date Collected: 06/23/25 11:05
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.7	2.4	ng/L		07/01/25 08:11	07/08/25 13:10	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.7	2.2	ng/L		07/01/25 08:11	07/08/25 13:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*5 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C5 PFPeA	*103*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C5 PFHxA	*92.7*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C4 PFHpA	*96.2*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C8 PFOA	*95.8*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C9 PFNA	*96.1*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C6 PFDA	*100*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C7 PFUnA	*85.8*		*30 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C2 PFTeDA	*63.2*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C3 PFBS	*101*		*40 - 135*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C3 PFHxS	*109*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C8 PFOS	*107*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C8 FOSA	*90.1*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
d3-NMeFOSAA	*66.5*		*40 - 170*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
d5-NEtFOSAA	*71.2*		*25 - 135*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C2 4:2 FTS	*97.2*		*40 - 200*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C2 6:2 FTS	*102*		*40 - 200*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C2 8:2 FTS	*85.8*		*40 - 300*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C3 HFPO-DA	*74.4*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
d7-N-MeFOSE-M	*20.4*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
d9-N-EtFOSE-M	*8.60*	**5- cn*	*10 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
d5-NEtPFOSA	*75.9*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
d3-NMePFOSA	*80.3*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*
13C2 PFDoA	*78.5*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:10*	*1*

Client Sample ID: DC330005-DUP
Lab Sample ID: 410-229248-3
Date Collected: 06/23/25 00:00
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**40**		3.7	1.0	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluoropentanoic acid (PFPeA)	**47**		1.9	0.56	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorohexanoic acid (PFHxA)	**61**		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluoroheptanoic acid (PFHpA)	**76**		1.9	0.75	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorooctanoic acid (PFOA)	**270**		1.9	0.84	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorononanoic acid (PFNA)	**26**		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorodecanoic acid (PFDA)	**8.5**		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorobutanesulfonic acid (PFBS)	**9.8**		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluoropentanesulfonic acid (PFPeS)	**6.7**		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1

Client Sample ID: DC330005-DUP
Date Collected: 06/23/25 00:00
Date Received: 06/25/25 10:20

Lab Sample ID: 410-229248-3
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**27**		1.9	0.75	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluoroheptanesulfonic acid (PFHpS)	**6.7**		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorooctanesulfonic acid (PFOS)	**540**		1.9	1.2	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorononanesulfonic acid (PFNS)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.9	0.56	ng/L		07/01/25 08:11	07/08/25 13:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.7	0.93	ng/L		07/01/25 08:11	07/08/25 13:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.7	0.93	ng/L		07/01/25 08:11	07/08/25 13:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.7	0.93	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluorooctanesulfonamide (PFOSA)	**8.0**		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**12**		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**8.7**		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.3	2.3	ng/L		07/01/25 08:11	07/08/25 13:24	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.3	3.7	ng/L		07/01/25 08:11	07/08/25 13:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.9	1.3	ng/L		07/01/25 08:11	07/08/25 13:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.9	0.47	ng/L		07/01/25 08:11	07/08/25 13:24	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.7	0.93	ng/L		07/01/25 08:11	07/08/25 13:24	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.3	2.6	ng/L		07/01/25 08:11	07/08/25 13:24	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.3	2.3	ng/L		07/01/25 08:11	07/08/25 13:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*5 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C5 PFPeA	*106*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*

Client Sample ID: DC330005-DUP
Lab Sample ID: 410-229248-3
Date Collected: 06/23/25 00:00
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C5 PFHxA	*93.5*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C4 PFHpA	*93.4*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C8 PFOA	*98.3*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C9 PFNA	*102*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C6 PFDA	*91.7*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C7 PFUnA	*68.7*		*30 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C2 PFTeDA	*48.6*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C3 PFBS	*102*		*40 - 135*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C3 PFHxS	*102*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C8 PFOS	*95.6*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C8 FOSA	*81.6*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
d3-NMeFOSAA	*77.6*		*40 - 170*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
d5-NEtFOSAA	*71.8*		*25 - 135*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C2 4:2 FTS	*99.6*		*40 - 200*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C2 6:2 FTS	*102*		*40 - 200*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C2 8:2 FTS	*80.2*		*40 - 300*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C3 HFPO-DA	*82.5*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
d7-N-MeFOSE-M	*31.2*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
d9-N-EtFOSE-M	*20.8*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
d5-NEtPFOSA	*69.6*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
d3-NMePFOSA	*69.8*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*
13C2 PFDoA	*60.1*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:24*	*1*

Client Sample ID: DC330005-FB
Lab Sample ID: 410-229248-4
Date Collected: 06/23/25 11:21
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.9	0.79	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluoropentanoic acid (PFPeA)	ND		1.4	0.43	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorohexanoic acid (PFHxA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluoroheptanoic acid (PFHpA)	ND		1.4	0.58	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorooctanoic acid (PFOA)	ND		1.4	0.65	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorononanoic acid (PFNA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorodecanoic acid (PFDA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluoroundecanoic acid (PFUnA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorododecanoic acid (PFDoA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.4	0.58	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.4	0.94	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorononanesulfonic acid (PFNS)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.4	0.43	ng/L		07/01/25 08:11	07/08/25 13:38	1

Client Sample ID: DC330005-FB
Lab Sample ID: 410-229248-4
Date Collected: 06/23/25 11:21
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.9	0.72	ng/L		07/01/25 08:11	07/08/25 13:38	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.9	0.72	ng/L		07/01/25 08:11	07/08/25 13:38	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.9	0.72	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.2	1.8	ng/L		07/01/25 08:11	07/08/25 13:38	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.2	2.9	ng/L		07/01/25 08:11	07/08/25 13:38	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	1.0	ng/L		07/01/25 08:11	07/08/25 13:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.4	0.36	ng/L		07/01/25 08:11	07/08/25 13:38	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.9	0.72	ng/L		07/01/25 08:11	07/08/25 13:38	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.2	2.0	ng/L		07/01/25 08:11	07/08/25 13:38	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.2	1.8	ng/L		07/01/25 08:11	07/08/25 13:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.2*		*5 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C5 PFPeA	*110*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C5 PFHxA	*95.3*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C4 PFHpA	*96.2*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C8 PFOA	*96.2*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C9 PFNA	*107*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C6 PFDA	*91.9*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C7 PFUnA	*80.0*		*30 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C2 PFTeDA	*81.3*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C3 PFBS	*89.8*		*40 - 135*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C3 PFHxS	*92.1*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*
13C8 PFOS	*104*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:38*	*1*

Client Sample ID: DC330005-FB
Lab Sample ID: 410-229248-4
Date Collected: 06/23/25 11:21
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	90.8		40 - 130	07/01/25 08:11	07/08/25 13:38	1
d3-NMeFOSAA	114		40 - 170	07/01/25 08:11	07/08/25 13:38	1
d5-NEtFOSAA	107		25 - 135	07/01/25 08:11	07/08/25 13:38	1
13C2 4:2 FTS	103		40 - 200	07/01/25 08:11	07/08/25 13:38	1
13C2 6:2 FTS	93.5		40 - 200	07/01/25 08:11	07/08/25 13:38	1
13C2 8:2 FTS	84.0		40 - 300	07/01/25 08:11	07/08/25 13:38	1
13C3 HFPO-DA	89.8		40 - 130	07/01/25 08:11	07/08/25 13:38	1
d7-N-MeFOSE-M	72.8		10 - 130	07/01/25 08:11	07/08/25 13:38	1
d9-N-EtFOSE-M	54.5		10 - 130	07/01/25 08:11	07/08/25 13:38	1
d5-NEtPFOSA	84.4		10 - 130	07/01/25 08:11	07/08/25 13:38	1
d3-NMePFOSA	83.4		10 - 130	07/01/25 08:11	07/08/25 13:38	1
13C2 PFDoA	81.0		10 - 130	07/01/25 08:11	07/08/25 13:38	1

Client Sample ID: DC330005-EB
Lab Sample ID: 410-229248-5
Date Collected: 06/23/25 11:19
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1	0.86	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.47	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.62	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.70	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.62	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		07/01/25 08:11	07/08/25 13:51	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.78	ng/L		07/01/25 08:11	07/08/25 13:51	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.78	ng/L		07/01/25 08:11	07/08/25 13:51	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.78	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Client Sample ID: DC330005-EB
Lab Sample ID: 410-229248-5
Date Collected: 06/23/25 11:19
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	1.9	ng/L		07/01/25 08:11	07/08/25 13:51	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	3.1	ng/L		07/01/25 08:11	07/08/25 13:51	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/01/25 08:11	07/08/25 13:51	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		07/01/25 08:11	07/08/25 13:51	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.78	ng/L		07/01/25 08:11	07/08/25 13:51	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.8	2.2	ng/L		07/01/25 08:11	07/08/25 13:51	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	1.9	ng/L		07/01/25 08:11	07/08/25 13:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*113*		*5 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C5 PFPeA	*124*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C5 PFHxA	*105*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C4 PFHpA	*98.9*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C8 PFOA	*98.0*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C9 PFNA	*95.6*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C6 PFDA	*86.7*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C7 PFUnA	*80.1*		*30 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C2 PFTeDA	*75.6*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C3 PFBS	*97.3*		*40 - 135*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C3 PFHxS	*96.7*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C8 PFOS	*99.3*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C8 FOSA	*99.7*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
d3-NMeFOSAA	*118*		*40 - 170*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
d5-NEtFOSAA	*107*		*25 - 135*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C2 4:2 FTS	*121*		*40 - 200*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C2 6:2 FTS	*107*		*40 - 200*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C2 8:2 FTS	*83.4*		*40 - 300*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
13C3 HFPO-DA	*90.7*		*40 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
d7-N-MeFOSE-M	*73.4*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
d9-N-EtFOSE-M	*60.5*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*
d5-NEtPFOSA	*84.8*		*10 - 130*	*07/01/25 08:11*	*07/08/25 13:51*	*1*

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Client Sample ID: DC330005-EB
Lab Sample ID: 410-229248-5
Date Collected: 06/23/25 11:19
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMePFOSA	86.0		10 - 130	07/01/25 08:11	07/08/25 13:51	1
13C2 PFDoA	79.4		10 - 130	07/01/25 08:11	07/08/25 13:51	1

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-229248-1	DC330005-MW-6	99.7	92.2	85.8	101	90.0	97.7	92.6	78.4
410-229248-2	DC330005-MW-1	100	103	92.7	96.2	95.8	96.1	100	85.8
410-229248-3	DC330005-DUP	101	106	93.5	93.4	98.3	102	91.7	68.7
410-229248-4	DC330005-FB	98.2	110	95.3	96.2	96.2	107	91.9	80.0
410-229248-5	DC330005-EB	113	124	105	98.9	98.0	95.6	86.7	80.1
LCS 410-665407/18-A	Lab Control Sample	116	130	109	112	99.2	104	91.2	85.2
LCSD 410-665407/20-A	Lab Control Sample Dup	114	124	106	107	96.8	99.3	88.1	81.5
LLCS 410-665407/19-A	Lab Control Sample	94.3	108	95.4	103	87.4	92.1	81.8	78.2
MB 410-665407/17-A	Method Blank	95.3	104	92.8	90.4	90.0	94.7	87.3	78.3

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-229248-1	DC330005-MW-6	69.7	97.0	101	105	93.2	106	102	87.4
410-229248-2	DC330005-MW-1	63.2	101	109	107	90.1	66.5	71.2	97.2
410-229248-3	DC330005-DUP	48.6	102	102	95.6	81.6	77.6	71.8	99.6
410-229248-4	DC330005-FB	81.3	89.8	92.1	104	90.8	114	107	103
410-229248-5	DC330005-EB	75.6	97.3	96.7	99.3	99.7	118	107	121
LCS 410-665407/18-A	Lab Control Sample	79.3	111	106	102	98.2	115	112	123
LCSD 410-665407/20-A	Lab Control Sample Dup	71.1	93.1	91.9	100	94.4	117	104	111
LLCS 410-665407/19-A	Lab Control Sample	66.3	89.9	89.8	93.2	81.5	103	96.2	98.0
MB 410-665407/17-A	Method Blank	81.1	99.5	96.7	93.3	85.8	98.5	94.8	107

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-229248-1	DC330005-MW-6	93.6	83.1	77.6	58.3	41.7	83.2	83.7	79.0
410-229248-2	DC330005-MW-1	102	85.8	74.4	20.4	8.60 *5-cn	75.9	80.3	78.5
410-229248-3	DC330005-DUP	102	80.2	82.5	31.2	20.8	69.6	69.8	60.1
410-229248-4	DC330005-FB	93.5	84.0	89.8	72.8	54.5	84.4	83.4	81.0
410-229248-5	DC330005-EB	107	83.4	90.7	73.4	60.5	84.8	86.0	79.4
LCS 410-665407/18-A	Lab Control Sample	116	90.4	96.3	63.2	51.7	73.5	75.9	84.8
LCSD 410-665407/20-A	Lab Control Sample Dup	99.8	82.7	92.9	61.4	46.6	81.7	83.8	83.5
LLCS 410-665407/19-A	Lab Control Sample	89.4	78.4	84.2	44.1	39.6	67.3	66.5	75.0
MB 410-665407/17-A	Method Blank	99.1	89.3	78.1	69.2	60.4	76.9	77.9	80.6

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-665407/17-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 665407

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/01/25 08:11	07/08/25 11:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/01/25 08:11	07/08/25 11:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/01/25 08:11	07/08/25 11:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/01/25 08:11	07/08/25 11:49	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/01/25 08:11	07/08/25 11:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/01/25 08:11	07/08/25 11:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-665407/17-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 665407

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/01/25 08:11	07/08/25 11:49	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/01/25 08:11	07/08/25 11:49	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/01/25 08:11	07/08/25 11:49	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/01/25 08:11	07/08/25 11:49	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95.3*		*5 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C5 PFPeA	*104*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C5 PFHxA	*92.8*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C4 PFHpA	*90.4*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C8 PFOA	*90.0*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C9 PFNA	*94.7*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C6 PFDA	*87.3*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C7 PFUnA	*78.3*		*30 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C2 PFTeDA	*81.1*		*10 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C3 PFBS	*99.5*		*40 - 135*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C3 PFHxS	*96.7*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C8 PFOS	*93.3*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C8 FOSA	*85.8*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
d3-NMeFOSAA	*98.5*		*40 - 170*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
d5-NEtFOSAA	*94.8*		*25 - 135*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C2 4:2 FTS	*107*		*40 - 200*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C2 6:2 FTS	*99.1*		*40 - 200*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C2 8:2 FTS	*89.3*		*40 - 300*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C3 HFPO-DA	*78.1*		*40 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
d7-N-MeFOSE-M	*69.2*		*10 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
d9-N-EtFOSE-M	*60.4*		*10 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
d5-NEtPFOSA	*76.9*		*10 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
d3-NMePFOSA	*77.9*		*10 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*
13C2 PFDoA	*80.6*		*10 - 130*	*07/01/25 08:11*	*07/08/25 11:49*	*1*

Lab Sample ID: LCS 410-665407/18-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665407

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	68.3		ng/L		85	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	29.0		ng/L		73	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	34.6		ng/L		87	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	35.0		ng/L		87	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	29.6		ng/L		74	70 - 150
Perfluorononanoic acid (PFNA)	40.0	34.7		ng/L		87	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	31.3		ng/L		78	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-665407/18-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665407

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	33.4		ng/L		83	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	34.5		ng/L		86	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	32.4		ng/L		81	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	31.7		ng/L		79	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	29.3		ng/L		83	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	35.7		ng/L		95	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	32.0		ng/L		88	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.1		ng/L		87	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	32.4		ng/L		87	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	28.5		ng/L		74	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	31.0		ng/L		80	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	28.4		ng/L		73	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	69.9		ng/L		93	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	72.9		ng/L		96	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	73.0		ng/L		95	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	38.7		ng/L		97	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	38.0		ng/L		95	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.4		ng/L		94	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	32.3		ng/L		81	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.4		ng/L		84	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	183		ng/L		92	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	191		ng/L		96	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	25.6		ng/L		85	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	36.3		ng/L		96	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	35.1		ng/L		88	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	30.0		ng/L		75	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	35.1		ng/L		88	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-665407/18-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665407

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.0		ng/L		80	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	32.5		ng/L		86	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	26.5		ng/L		74	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	56.6		ng/L		71	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	152		ng/L		76	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	114		ng/L		57	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*116*		*5 - 130*
13C5 PFPeA	*130*		*40 - 130*
13C5 PFHxA	*109*		*40 - 130*
13C4 PFHpA	*112*		*40 - 130*
13C8 PFOA	*99.2*		*40 - 130*
13C9 PFNA	*104*		*40 - 130*
13C6 PFDA	*91.2*		*40 - 130*
13C7 PFUnA	*85.2*		*30 - 130*
13C2 PFTeDA	*79.3*		*10 - 130*
13C3 PFBS	*111*		*40 - 135*
13C3 PFHxS	*106*		*40 - 130*
13C8 PFOS	*102*		*40 - 130*
13C8 FOSA	*98.2*		*40 - 130*
d3-NMeFOSAA	*115*		*40 - 170*
d5-NEtFOSAA	*112*		*25 - 135*
13C2 4:2 FTS	*123*		*40 - 200*
13C2 6:2 FTS	*116*		*40 - 200*
13C2 8:2 FTS	*90.4*		*40 - 300*
13C3 HFPO-DA	*96.3*		*40 - 130*
d7-N-MeFOSE-M	*63.2*		*10 - 130*
d9-N-EtFOSE-M	*51.7*		*10 - 130*
d5-NEtPFOSA	*73.5*		*10 - 130*
d3-NMePFOSA	*75.9*		*10 - 130*
13C2 PFDoA	*84.8*		*10 - 130*

Lab Sample ID: LCSD 410-665407/20-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 665407

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	72.7		ng/L		91	70 - 140	6	30
Perfluoropentanoic acid (PFPeA)			40.0	30.6		ng/L		77	65 - 135	5	30
Perfluorohexanoic acid (PFHxA)			40.0	34.3		ng/L		86	70 - 145	1	30
Perfluoroheptanoic acid (PFHpA)			40.0	33.7		ng/L		84	70 - 150	4	30
Perfluorooctanoic acid (PFOA)			40.0	30.2		ng/L		75	70 - 150	2	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-665407/20-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 665407

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	34.8		ng/L		87	70 - 150	0	30
Perfluorodecanoic acid (PFDA)	40.0	34.0		ng/L		85	70 - 140	8	30
Perfluoroundecanoic acid (PFUnA)	40.0	35.6		ng/L		89	70 - 145	6	30
Perfluorododecanoic acid (PFDoA)	40.0	34.5		ng/L		86	70 - 140	0	30
Perfluorotridecanoic acid (PFTrDA)	40.0	37.1		ng/L		93	65 - 140	13	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.3		ng/L		76	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)	35.5	32.0		ng/L		90	60 - 145	9	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	37.5		ng/L		100	65 - 140	5	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	34.0		ng/L		93	65 - 145	6	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	35.1		ng/L		92	70 - 150	6	30
Perfluorooctanesulfonic acid (PFOS)	37.2	31.4		ng/L		84	55 - 150	3	30
Perfluorononanesulfonic acid (PFNS)	38.5	30.8		ng/L		80	65 - 145	8	30
Perfluorodecanesulfonic acid (PFDS)	38.6	34.9		ng/L		91	60 - 145	12	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	28.7		ng/L		74	50 - 145	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	72.3		ng/L		96	70 - 145	3	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	72.9		ng/L		96	65 - 155	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	75.5		ng/L		98	60 - 150	3	30
Perfluorooctanesulfonamide (PFOSA)	40.0	42.1		ng/L		105	70 - 145	8	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.7		ng/L		99	60 - 150	4	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	36.2		ng/L		90	65 - 145	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	33.8		ng/L		84	50 - 140	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.6		ng/L		97	70 - 145	15	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	185		ng/L		93	70 - 145	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	192		ng/L		96	70 - 135	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.2		ng/L		91	70 - 140	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	36.0		ng/L		95	65 - 145	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	37.3		ng/L		93	55 - 140	6	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.4		ng/L		81	60 - 150	8	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-665407/20-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 665407

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	33.2		ng/L		83	50 - 150	6	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.7		ng/L		82	70 - 155	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	33.6		ng/L		89	55 - 160	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	25.0		ng/L		70	70 - 140	6	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	61.5		ng/L		77	65 - 130	8	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	151		ng/L		75	70 - 135	1	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	129		ng/L		64	50 - 145	12	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*114*		*5 - 130*
13C5 PFPeA	*124*		*40 - 130*
13C5 PFHxA	*106*		*40 - 130*
13C4 PFHpA	*107*		*40 - 130*
13C8 PFOA	*96.8*		*40 - 130*
13C9 PFNA	*99.3*		*40 - 130*
13C6 PFDA	*88.1*		*40 - 130*
13C7 PFUnA	*81.5*		*30 - 130*
13C2 PFTeDA	*71.1*		*10 - 130*
13C3 PFBS	*93.1*		*40 - 135*
13C3 PFHxS	*91.9*		*40 - 130*
13C8 PFOS	*100*		*40 - 130*
13C8 FOSA	*94.4*		*40 - 130*
d3-NMeFOSAA	*117*		*40 - 170*
d5-NEtFOSAA	*104*		*25 - 135*
13C2 4:2 FTS	*111*		*40 - 200*
13C2 6:2 FTS	*99.8*		*40 - 200*
13C2 8:2 FTS	*82.7*		*40 - 300*
13C3 HFPO-DA	*92.9*		*40 - 130*
d7-N-MeFOSE-M	*61.4*		*10 - 130*
d9-N-EtFOSE-M	*46.6*		*10 - 130*
d5-NEtPFOSA	*81.7*		*10 - 130*
d3-NMePFOSA	*83.8*		*10 - 130*
13C2 PFDoA	*83.5*		*10 - 130*

Lab Sample ID: LLCS 410-665407/19-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665407

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.36		ng/L		92	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	3.25		ng/L		81	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.32		ng/L		83	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-665407/19-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665407

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.44		ng/L		86	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.60		ng/L		90	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.81		ng/L		95	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.24		ng/L		81	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.52		ng/L		88	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.47		ng/L		87	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.51		ng/L		88	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.00		ng/L		100	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.15		ng/L		89	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.87		ng/L		103	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	4.11		ng/L		113	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.58		ng/L		94	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.14		ng/L		84	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	2.80		ng/L		73	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.39		ng/L		88	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.88		ng/L		74	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.58		ng/L		101	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.99		ng/L		105	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.33		ng/L		96	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.20		ng/L		105	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.99		ng/L		100	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.75		ng/L		94	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.63		ng/L		91	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.22		ng/L		81	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	20.8		ng/L		104	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.9		ng/L		99	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.83		ng/L		94	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.49		ng/L		92	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.62		ng/L		91	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-665407/19-A
Matrix: Water
Analysis Batch: 667686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665407

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro-4-methoxybutanoic acid (PFMBA)			4.00	3.13		ng/L		78	60 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			4.00	3.29		ng/L		82	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			3.74	3.09		ng/L		83	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			3.78	2.93		ng/L		78	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			3.57	2.59		ng/L		73	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			8.00	5.44		ng/L		68	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			20.0	15.4		ng/L		77	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			20.0	11.8		ng/L		59	50 - 145		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*94.3*		*5 - 130*
13C5 PFPeA	*108*		*40 - 130*
13C5 PFHxA	*95.4*		*40 - 130*
13C4 PFHpA	*103*		*40 - 130*
13C8 PFOA	*87.4*		*40 - 130*
13C9 PFNA	*92.1*		*40 - 130*
13C6 PFDA	*81.8*		*40 - 130*
13C7 PFUnA	*78.2*		*30 - 130*
13C2 PFTeDA	*66.3*		*10 - 130*
13C3 PFBS	*89.9*		*40 - 135*
13C3 PFHxS	*89.8*		*40 - 130*
13C8 PFOS	*93.2*		*40 - 130*
13C8 FOSA	*81.5*		*40 - 130*
d3-NMeFOSAA	*103*		*40 - 170*
d5-NEtFOSAA	*96.2*		*25 - 135*
13C2 4:2 FTS	*98.0*		*40 - 200*
13C2 6:2 FTS	*89.4*		*40 - 200*
13C2 8:2 FTS	*78.4*		*40 - 300*
13C3 HFPO-DA	*84.2*		*40 - 130*
d7-N-MeFOSE-M	*44.1*		*10 - 130*
d9-N-EtFOSE-M	*39.6*		*10 - 130*
d5-NEtPFOSA	*67.3*		*10 - 130*
d3-NMePFOSA	*66.5*		*10 - 130*
13C2 PFDoA	*75.0*		*10 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

LCMS

Prep Batch: 665407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229248-1	DC330005-MW-6	Total/NA	Water	1633A	
410-229248-2	DC330005-MW-1	Total/NA	Water	1633A	
410-229248-3	DC330005-DUP	Total/NA	Water	1633A	
410-229248-4	DC330005-FB	Total/NA	Water	1633A	
410-229248-5	DC330005-EB	Total/NA	Water	1633A	
MB 410-665407/17-A	Method Blank	Total/NA	Water	1633A	
LCS 410-665407/18-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-665407/20-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-665407/19-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 667686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229248-1	DC330005-MW-6	Total/NA	Water	1633A	665407
410-229248-2	DC330005-MW-1	Total/NA	Water	1633A	665407
410-229248-3	DC330005-DUP	Total/NA	Water	1633A	665407
410-229248-4	DC330005-FB	Total/NA	Water	1633A	665407
410-229248-5	DC330005-EB	Total/NA	Water	1633A	665407
MB 410-665407/17-A	Method Blank	Total/NA	Water	1633A	665407
LCS 410-665407/18-A	Lab Control Sample	Total/NA	Water	1633A	665407
LCSD 410-665407/20-A	Lab Control Sample Dup	Total/NA	Water	1633A	665407
LLCS 410-665407/19-A	Lab Control Sample	Total/NA	Water	1633A	665407

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Client Sample ID: DC330005-MW-6
Lab Sample ID: 410-229248-1
Date Collected: 06/23/25 10:23
Matrix: Water
Date Received: 06/25/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			665407	H3KQ	ELLE	07/01/25 08:11
Total/NA	Analysis	1633A		1	667686	RPU6	ELLE	07/08/25 12:57

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2
Date Collected: 06/23/25 11:05
Matrix: Water
Date Received: 06/25/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			665407	H3KQ	ELLE	07/01/25 08:11
Total/NA	Analysis	1633A		1	667686	RPU6	ELLE	07/08/25 13:10

Client Sample ID: DC330005-DUP
Lab Sample ID: 410-229248-3
Date Collected: 06/23/25 00:00
Matrix: Water
Date Received: 06/25/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			665407	H3KQ	ELLE	07/01/25 08:11
Total/NA	Analysis	1633A		1	667686	RPU6	ELLE	07/08/25 13:24

Client Sample ID: DC330005-FB
Lab Sample ID: 410-229248-4
Date Collected: 06/23/25 11:21
Matrix: Water
Date Received: 06/25/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			665407	H3KQ	ELLE	07/01/25 08:11
Total/NA	Analysis	1633A		1	667686	RPU6	ELLE	07/08/25 13:38

Client Sample ID: DC330005-EB
Lab Sample ID: 410-229248-5
Date Collected: 06/23/25 11:19
Matrix: Water
Date Received: 06/25/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			665407	H3KQ	ELLE	07/01/25 08:11
Total/NA	Analysis	1633A		1	667686	RPU6	ELLE	07/08/25 13:51

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-1
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-229248-1	DC330005-MW-6	Water	06/23/25 10:23	06/25/25 10:20
410-229248-2	DC330005-MW-1	Water	06/23/25 11:05	06/25/25 10:20
410-229248-3	DC330005-DUP	Water	06/23/25 00:00	06/25/25 10:20
410-229248-4	DC330005-FB	Water	06/23/25 11:21	06/25/25 10:20
410-229248-5	DC330005-EB	Water	06/23/25 11:19	06/25/25 10:20



410-229248 Chain of Custody

/ironme

Chain of Custody Record

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	Sampler: NWS + RES	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159682-44160.1
Client Contact: Mandy Klaben	Phone: 919-847-4241	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #: DSO.PFAS
Address: 3921 Sunset Ridge Rd Suite 301	Due Date Requested: 7 H Standard			Preservation Codes: N - None
City: Raleigh	TAT Requested (days):			
State, Zip: NC, 27607	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DSO.PFAS			
Email: mklaben@harthickman.com	WO #:			
Project Name: Deluxe Cleaners (ATC Site) (DC330005)	Project #: 41025876			
Site: DSO.PFAS	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC330005-MW-6	6/23/25	1023	G	Water	N	N	X	X		* TOPs on HOLD!
DC330005-MW-1	6/23/25	1105	G	Water	N	N	X	X		
DC330005-DUP	6/23/25	—	G	Water	N	N	X	X		-Report J Flags
			G	Water			(NV)			-Report <MDL
DC330005-FB	6/23/25	1121	G	Water	N	N		X		* EDDs for
DC330005-EB	6/23/25	1119	G	Water	N	N		X		HH, DSCA, NC DEQ

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 6/24/25 0733	Company: HH	Received by:	Date/Time: 6/24/25 1249	Company: Eurofins		
Relinquished by:	Date/Time: 6/24/25 1640	Company: Eurofins	Received by:	Date/Time:	Company:		
Relinquished by:	Date/Time:	Company:	Received by: 6/25/25	Date/Time: 1020	Company:		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 3.8 C: 3.6

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-229248-1

Login Number: 229248
List Number: 1
Creator: Shortes, Erin K

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 9/4/2025 2:36:33 PM

JOB DESCRIPTION

Deluxe Cleaners (ATC Site) (DC330005)

JOB NUMBER

410-229248-2

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
9/4/2025 2:36:33 PM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

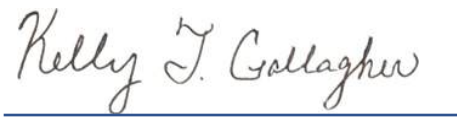


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Qualifiers

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-229248-2 — Eurofins Lancaster Laboratories Environment

Job Narrative
410-229248-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 6/25/2025 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received. The COC is missing Number of containers per sample. This does not meet regulatory requirements.

PFAS
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Client Sample ID: DC330005-MW-6
Lab Sample ID: 410-229248-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	53		20	5.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoropentanoic acid (PFPeA)	100		10	3.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanoic acid (PFHxA)	150		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	99		10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	330		10	4.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	32		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoropentanesulfonic acid (PFPeS)	34		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanesulfonic acid (PFHxS)	210		10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	110	I	10	6.5	ng/L	1		1633 TOPS	Post-Treatment

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	33		20	5.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoropentanoic acid (PFPeA)	66		9.9	3.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanoic acid (PFHxA)	71		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	86		9.9	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	280		9.9	4.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorononanoic acid (PFNA)	34		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorodecanoic acid (PFDA)	11		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	9.8	J	9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoropentanesulfonic acid (PFPeS)	7.4	J	9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanesulfonic acid (PFHxS)	30		9.9	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanesulfonic acid (PFHpS)	7.9	J	9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	650		9.9	6.4	ng/L	1		1633 TOPS	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Client Sample ID: DC330005-MW-6
Lab Sample ID: 410-229248-1
Date Collected: 06/23/25 10:23
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**53**		20	5.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluoropentanoic acid (PFPeA)	**100**		10	3.0	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorohexanoic acid (PFHxA)	**150**		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluoroheptanoic acid (PFHpA)	**99**		10	4.0	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorooctanoic acid (PFOA)	**330**		10	4.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorobutanesulfonic acid (PFBS)	**32**		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluoropentanesulfonic acid (PFPeS)	**34**		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorohexanesulfonic acid (PFHxS)	**210**		10	4.0	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorooctanesulfonic acid (PFOS)	**110**	I	10	6.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 12:02	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:02	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 12:02	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		08/28/25 11:44	09/02/25 12:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		08/28/25 11:44	09/02/25 12:02	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1

Client Sample ID: DC330005-MW-6
Lab Sample ID: 410-229248-1
Date Collected: 06/23/25 10:23
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:02	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		08/28/25 11:44	09/02/25 12:02	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88.9*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C5 PFPeA	*89.0*		*35 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C5 PFHxA	*88.3*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C4 PFHpA	*82.7*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C9 PFNA	*74.1*		*55 - 140*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C6 PFDA	*77.9*		*50 - 140*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C7 PFUnA	*73.9*		*30 - 140*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C2 PFTeDA	*60.6*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C3 PFBS	*84.6*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C3 PFHxS	*81.2*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C8 PFOS	*103*		*45 - 140*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
d3-NMeFOSAA	*90.1*		*45 - 200*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
d5-NEtFOSAA	*92.0*		*10 - 200*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C2 PFDoA	*70.2*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C2 4:2 FTS	*99.7*		*60 - 200*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C2 6:2 FTS	*110*		*60 - 200*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C2 8:2 FTS	*100*		*50 - 200*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C3 HFPO-DA	*75.6*		*25 - 160*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
d7-N-MeFOSE-M	*53.5*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
d9-N-EtFOSE-M	*48.6*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
d5-NEtPFOSA	*79.5*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
d3-NMePFOSA	*73.0*		*15 - 130*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C8 FOSA	*5.70*		*0 - 10*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
13C2 PFOA	*103*		*40 - 130*	*08/28/25 11:44*	*09/02/25 12:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA	*98*		*50 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*
M3PFPeA	*84*		*50 - 150*	*08/28/25 11:44*	*09/02/25 12:02*	*1*

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2
Date Collected: 06/23/25 11:05
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**33**		20	5.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluoropentanoic acid (PFPeA)	**66**		9.9	3.0	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorohexanoic acid (PFHxA)	**71**		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluoroheptanoic acid (PFHpA)	**86**		9.9	4.0	ng/L		08/28/25 11:44	09/02/25 12:16	1

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2
Date Collected: 06/23/25 11:05
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**280**		9.9	4.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorononanoic acid (PFNA)	**34**		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorodecanoic acid (PFDA)	**11**		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluoroundecanoic acid (PFUnA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorododecanoic acid (PFDoA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorotridecanoic acid (PFTrDA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorotetradecanoic acid (PFTeDA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorobutanesulfonic acid (PFBS)	**9.8**	**J**	9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluoropentanesulfonic acid (PFPeS)	**7.4**	**J**	9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorohexanesulfonic acid (PFHxS)	**30**		9.9	4.0	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluoroheptanesulfonic acid (PFHpS)	**7.9**	**J**	9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorooctanesulfonic acid (PFOS)	**650**		9.9	6.4	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorononanesulfonic acid (PFNS)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorododecanesulfonic acid (PFDoS)	ND		9.9	3.0	ng/L		08/28/25 11:44	09/02/25 12:16	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:16	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	12	ng/L		08/28/25 11:44	09/02/25 12:16	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		08/28/25 11:44	09/02/25 12:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		9.9	6.9	ng/L		08/28/25 11:44	09/02/25 12:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:16	1

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2
Date Collected: 06/23/25 11:05
Matrix: Water
Date Received: 06/25/25 10:20

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		08/28/25 11:44	09/02/25 12:16	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	12	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		9.9	2.5	ng/L		08/28/25 11:44	09/02/25 12:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.1*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C5 PFPeA	*87.2*		*35 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C5 PFHxA	*85.8*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C4 PFHpA	*83.1*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C9 PFNA	*76.1*		*55 - 140*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C6 PFDA	*76.3*		*50 - 140*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C7 PFUnA	*69.8*		*30 - 140*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C2 PFTeDA	*59.1*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C3 PFBS	*85.9*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C3 PFHxS	*79.5*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C8 PFOS	*80.7*		*45 - 140*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
d3-NMeFOSAA	*84.4*		*45 - 200*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
d5-NEtFOSAA	*82.1*		*10 - 200*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C2 PFDoA	*68.0*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C2 4:2 FTS	*97.7*		*60 - 200*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C2 6:2 FTS	*109*		*60 - 200*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C2 8:2 FTS	*96.7*		*50 - 200*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C3 HFPO-DA	*76.0*		*25 - 160*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
d7-N-MeFOSE-M	*60.2*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
d9-N-EtFOSE-M	*48.3*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
d5-NEtPFOSA	*67.0*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
d3-NMePFOSA	*69.9*		*15 - 130*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C8 FOSA	*1.35*		*0 - 10*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
13C2 PFOA	*102*		*40 - 130*	*08/28/25 11:44*	*09/02/25 12:16*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA	*101*		*50 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*
M3PFPeA	*86*		*50 - 150*	*08/28/25 11:44*	*09/02/25 12:16*	*1*

Surrogate Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)	
		PFUnA	M3PFPeA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
410-229248-1	DC330005-MW-6	98	84
410-229248-2	DC330005-MW-1	101	86

Surrogate Legend

PFUnA = 13C2 PFUnA

M3PFPeA = M3PFPeA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)	
		PFUnA	M3PFPeA
Lab Sample ID	Client Sample ID		
MB 410-691924/1-A	Method Blank		
MB 410-691924/2-A	Method Blank		

Surrogate Legend

PFUnA = 13C2 PFUnA

M3PFPeA = M3PFPeA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(55-140)	(50-140)	(30-140)	(10-130)
410-229248-1	DC330005-MW-6	88.9	89.0	88.3	82.7	74.1	77.9	73.9	60.6
410-229248-2	DC330005-MW-1	90.1	87.2	85.8	83.1	76.1	76.3	69.8	59.1
MB 410-691924/1-A	Method Blank	83.5	84.7	91.2	79.4	75.9	76.0	73.5	69.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFDoA	M242FTS	M262FTS
Lab Sample ID	Client Sample ID	(55-150)	(55-150)	(45-140)	(45-200)	(10-200)	(10-150)	(60-200)	(60-200)
410-229248-1	DC330005-MW-6	84.6	81.2	103	90.1	92.0	70.2	99.7	110
410-229248-2	DC330005-MW-1	85.9	79.5	80.7	84.4	82.1	68.0	97.7	109
MB 410-691924/1-A	Method Blank	77.1	78.3	80.6	87.5	87.5	71.5	98.7	123

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFOSA	13PFOA
Lab Sample ID	Client Sample ID	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)	(0-10)	(40-130)
410-229248-1	DC330005-MW-6	100	75.6	53.5	48.6	79.5	73.0	5.70	103
410-229248-2	DC330005-MW-1	96.7	76.0	60.2	48.3	67.0	69.9	1.35	102
MB 410-691924/1-A	Method Blank	105	73.5	65.7	61.1	71.8	69.8	1.20	97.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFOSA = 13C8 FOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(20-140)	(20-140)	(10-130)
LCS 410-691924/3-A	Lab Control Sample	87.8	83.0	86.2	81.1	74.9	79.2	79.1	60.9
LLCS 410-691924/5-A	Lab Control Sample	86.1	84.3	89.6	80.4	74.5	79.9	80.2	64.2

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	C3PFBS (25-150)	C3PFHS (25-150)	C8PFOS (20-140)	d3NMFOS (10-200)	d5NEFOS (10-200)	PFDoA (10-150)	M242FTS (25-200)	M262FTS (25-200)
LCS 410-691924/3-A	Lab Control Sample	79.8	76.4	77.7	89.3	89.8	74.0	97.0	97.2
LLCS 410-691924/5-A	Lab Control Sample	85.1	78.9	82.7	94.1	92.0	71.1	99.1	106

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	M282FTS (25-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (10-130)	13PFOA (40-130)
LCS 410-691924/3-A	Lab Control Sample	98.8	75.9	57.5	53.7	66.9	66.9	101
LLCS 410-691924/5-A	Lab Control Sample	97.3	74.7	65.5	54.8	67.8	65.5	96.3

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
LCSD 410-691924/4-A	Lab Control Sample Dup								

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFDoA	M242FTS	M262FTS
LCSD 410-691924/4-A	Lab Control Sample Dup								

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	13PFOA
LCSD 410-691924/4-A	Lab Control Sample Dup							

Surrogate Legend

PFBA = 13C4 PFBA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(55-140)	(50-140)	(30-140)	(10-130)
MB 410-691924/2-A	Method Blank	84.5	84.3	83.2	78.0	73.4	72.9	72.1	59.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFDoA	M242FTS	M262FTS
Lab Sample ID	Client Sample ID	(55-150)	(55-150)	(45-140)	(45-200)	(10-200)	(10-150)	(60-200)	(60-200)
MB 410-691924/2-A	Method Blank	79.2	78.0	74.9	91.3	92.9	70.8	96.5	103

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFOSA	13PFOA
Lab Sample ID	Client Sample ID	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)		(40-130)
MB 410-691924/2-A	Method Blank	102	72.6	58.7	47.4	69.3	67.9		95.2

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFOSA = 13C8 FOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-691924/1-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoropentanoic acid (PFPeA)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorohexanoic acid (PFHxA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoroheptanoic acid (PFHpA)	ND		10	4.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorooctanoic acid (PFOA)	ND		10	4.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10	4.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorooctanesulfonic acid (PFOS)	ND		10	6.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		08/28/25 11:44	09/02/25 10:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-691924/1-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		08/28/25 11:44	09/02/25 10:54	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*83.5*		*10 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C5 PFPeA	*84.7*		*35 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C5 PFHxA	*91.2*		*55 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C4 PFHpA	*79.4*		*55 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C9 PFNA	*75.9*		*55 - 140*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C6 PFDA	*76.0*		*50 - 140*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C7 PFUnA	*73.5*		*30 - 140*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 PFTeDA	*69.6*		*10 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C3 PFBS	*77.1*		*55 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C3 PFHxS	*78.3*		*55 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C8 PFOS	*80.6*		*45 - 140*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d3-NMeFOSAA	*87.5*		*45 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d5-NEtFOSAA	*87.5*		*10 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 PFDoA	*71.5*		*10 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 4:2 FTS	*98.7*		*60 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 6:2 FTS	*123*		*60 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 8:2 FTS	*105*		*50 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C3 HFPO-DA	*73.5*		*25 - 160*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d7-N-MeFOSE-M	*65.7*		*10 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d9-N-EtFOSE-M	*61.1*		*10 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d5-NEtPFOSA	*71.8*		*10 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d3-NMePFOSA	*69.8*		*15 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C8 FOSA	*1.20*		*0 - 10*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 PFOA	*97.1*		*40 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA				*08/28/25 11:44*	*09/02/25 10:54*	*1*
M3PFPeA				*08/28/25 11:44*	*09/02/25 10:54*	*1*

Lab Sample ID: MB 410-691924/2-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoropentanoic acid (PFPeA)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorohexanoic acid (PFHxA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-691924/2-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	ND		10	4.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorooctanoic acid (PFOA)	ND		10	4.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10	4.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorooctanesulfonic acid (PFOS)	ND		10	6.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		08/28/25 11:44	09/02/25 11:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 11:08	1

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-691924/2-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		08/28/25 11:44	09/02/25 11:08	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*84.5*		*10 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C5 PFPeA	*84.3*		*35 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C5 PFHxA	*83.2*		*55 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C4 PFHpA	*78.0*		*55 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C9 PFNA	*73.4*		*55 - 140*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C6 PFDA	*72.9*		*50 - 140*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C7 PFUnA	*72.1*		*30 - 140*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 PFTeDA	*59.2*		*10 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C3 PFBS	*79.2*		*55 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C3 PFHxS	*78.0*		*55 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C8 PFOS	*74.9*		*45 - 140*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d3-NMeFOSAA	*91.3*		*45 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d5-NEtFOSAA	*92.9*		*10 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 PFDoA	*70.8*		*10 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 4:2 FTS	*96.5*		*60 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 6:2 FTS	*103*		*60 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 8:2 FTS	*102*		*50 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C3 HFPO-DA	*72.6*		*25 - 160*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d7-N-MeFOSE-M	*58.7*		*10 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d9-N-EtFOSE-M	*47.4*		*10 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d5-NEtPFOSA	*69.3*		*10 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d3-NMePFOSA	*67.9*		*15 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C8 FOSA				*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 PFOA	*95.2*		*40 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA				*08/28/25 11:44*	*09/02/25 11:08*	*1*
M3PFPeA				*08/28/25 11:44*	*09/02/25 11:08*	*1*

Lab Sample ID: LCS 410-691924/3-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	400	362		ng/L		91	58 - 148
Perfluoropentanoic acid (PFPeA)	200	190		ng/L		95	54 - 152
Perfluorohexanoic acid (PFHxA)	200	192		ng/L		96	55 - 152
Perfluoroheptanoic acid (PFHpA)	200	211		ng/L		106	54 - 154
Perfluorooctanoic acid (PFOA)	200	154		ng/L		77	52 - 161
Perfluorononanoic acid (PFNA)	200	212		ng/L		106	59 - 149

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-691924/3-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorodecanoic acid (PFDA)	200	195		ng/L		97	52 - 147
Perfluoroundecanoic acid (PFUnA)	200	199		ng/L		99	48 - 159
Perfluorododecanoic acid (PFDoA)	200	203		ng/L		101	64 - 142
Perfluorotridecanoic acid (PFTrDA)	200	207		ng/L		104	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	200	199		ng/L		99	47 - 161
Perfluorobutanesulfonic acid (PFBS)	178	166		ng/L		93	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	188	198		ng/L		105	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	182	170		ng/L		93	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	191	211		ng/L		111	55 - 152
Perfluorooctanesulfonic acid (PFOS)	186	190		ng/L		102	58 - 149
Perfluorononanesulfonic acid (PFNS)	192	195		ng/L		102	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	194	167		ng/L		86	36 - 145
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	375	373		ng/L		100	67 - 146
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	381	396		ng/L		104	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	384	360		ng/L		94	63 - 152
Perfluorooctanesulfonamide (PFOSA)	200	146		ng/L		73	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	200	191		ng/L		95	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	200	193		ng/L		96	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	200	210		ng/L		105	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	200	200		ng/L		100	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	1000	1150		ng/L		115	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	1000	1050		ng/L		105	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	150	175		ng/L		117	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	189	200		ng/L		106	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	200	209		ng/L		104	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	200	194		ng/L		97	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	187	187		ng/L		100	56 - 156

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-691924/3-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	180		ng/L		95	46 - 156		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	169		ng/L		94	56 - 151		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	362		ng/L		91	62 - 129		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	875		ng/L		87	63 - 134		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	809		ng/L		81	50 - 138		
Perfluorodecanesulfonic acid (PFDS)			193	180		ng/L		93	51 - 147		
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	194		ng/L		97	51 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*87.8*		*10 - 130*
13C5 PFPeA	*83.0*		*40 - 150*
13C5 PFHxA	*86.2*		*40 - 150*
13C4 PFHpA	*81.1*		*40 - 150*
13C9 PFNA	*74.9*		*30 - 140*
13C6 PFDA	*79.2*		*20 - 140*
13C7 PFUnA	*79.1*		*20 - 140*
13C2 PFTeDA	*60.9*		*10 - 130*
13C3 PFBS	*79.8*		*25 - 150*
13C3 PFHxS	*76.4*		*25 - 150*
13C8 PFOS	*77.7*		*20 - 140*
d3-NMeFOSAA	*89.3*		*10 - 200*
d5-NEtFOSAA	*89.8*		*10 - 200*
13C2 PFDoA	*74.0*		*10 - 150*
13C2 4:2 FTS	*97.0*		*25 - 200*
13C2 6:2 FTS	*97.2*		*25 - 200*
13C2 8:2 FTS	*98.8*		*25 - 200*
13C3 HFPO-DA	*75.9*		*25 - 160*
d7-N-MeFOSE-M	*57.5*		*10 - 150*
d9-N-EtFOSE-M	*53.7*		*10 - 150*
d5-NEtPFOSA	*66.9*		*10 - 130*
d3-NMePFOSA	*66.9*		*10 - 130*
13C2 PFOA	*101*		*40 - 130*

Lab Sample ID: LCSD 410-691924/4-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			400	372		ng/L					
Perfluoropentanoic acid (PFPeA)			200	192		ng/L					
Perfluorohexanoic acid (PFHxA)			200	181		ng/L					
Perfluoroheptanoic acid (PFHpA)			200	214		ng/L					
Perfluorooctanoic acid (PFOA)			200	160		ng/L					

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-691924/4-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)			200	218		ng/L					
Perfluorodecanoic acid (PFDA)			200	189		ng/L					
Perfluoroundecanoic acid (PFUnA)			200	210		ng/L					
Perfluorododecanoic acid (PFDoA)			200	215		ng/L					
Perfluorotridecanoic acid (PFTrDA)			200	220		ng/L					
Perfluorotetradecanoic acid (PFTeDA)			200	223		ng/L					
Perfluorobutanesulfonic acid (PFBS)			178	172		ng/L					
Perfluoropentanesulfonic acid (PFPeS)			188	197		ng/L					
Perfluorohexanesulfonic acid (PFHxS)			182	178		ng/L					
Perfluoroheptanesulfonic acid (PFHpS)			191	212		ng/L					
Perfluorooctanesulfonic acid (PFOS)			186	191		ng/L					
Perfluorononanesulfonic acid (PFNS)			192	202		ng/L					
Perfluorododecanesulfonic acid (PFDoS)			194	194		ng/L					
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)			375	383		ng/L					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)			381	398		ng/L					
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			384	360		ng/L					
Perfluorooctanesulfonamide (PFOSA)			200	150		ng/L					
N-methylperfluorooctane sulfonamide (NMeFOSA)			200	199		ng/L					
N-ethylperfluorooctane sulfonamide (NEtFOSA)			200	188		ng/L					
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			200	206		ng/L					
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			200	187		ng/L					
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			1000	1070		ng/L					
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			1000	1080		ng/L					
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			150	182		ng/L					
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			189	215		ng/L					
Perfluoro-4-methoxybutanoic acid (PFMBA)			200	209		ng/L					
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			200	182		ng/L					
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			187	199		ng/L					

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-691924/4-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	208		ng/L					
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	161		ng/L					
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	382		ng/L					
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	829		ng/L					
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	757		ng/L					
Perfluorodecanesulfonic acid (PFDS)			193	192		ng/L					
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	193		ng/L					

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA			
13C5 PFPeA			
13C5 PFHxA			
13C4 PFHpA			
13C9 PFNA			
13C6 PFDA			
13C7 PFUnA			
13C2 PFTeDA			
13C3 PFBS			
13C3 PFHxS			
13C8 PFOS			
d3-NMeFOSAA			
d5-NEtFOSAA			
13C2 PFDoA			
13C2 4:2 FTS			
13C2 6:2 FTS			
13C2 8:2 FTS			
13C3 HFPO-DA			
d7-N-MeFOSE-M			
d9-N-EtFOSE-M			
d5-NEtPFOSA			
d3-NMePFOSA			
13C2 PFOA			

Lab Sample ID: LLCS 410-691924/5-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)			40.0	37.8		ng/L		94	44 - 157		
Perfluoropentanoic acid (PFPeA)			20.0	20.0		ng/L		100	57 - 148		
Perfluorohexanoic acid (PFHxA)			20.0	19.9		ng/L		99	62 - 149		
Perfluoroheptanoic acid (PFHpA)			20.0	20.6		ng/L		103	56 - 150		
Perfluorooctanoic acid (PFOA)			20.0	17.7		ng/L		88	57 - 161		

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-691924/5-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	20.0	22.7		ng/L		113	53 - 157
Perfluorodecanoic acid (PFDA)	20.0	19.4		ng/L		97	43 - 158
Perfluoroundecanoic acid (PFUnA)	20.0	20.9		ng/L		105	50 - 155
Perfluorododecanoic acid (PFDoA)	20.0	21.4		ng/L		107	60 - 141
Perfluorotridecanoic acid (PFTrDA)	20.0	20.8		ng/L		104	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	20.0	22.6		ng/L		113	52 - 156
Perfluorobutanesulfonic acid (PFBS)	17.8	16.8		ng/L		95	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	18.8	19.8		ng/L		105	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	18.2	19.5		ng/L		107	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	19.1	21.0		ng/L		110	51 - 150
Perfluorooctanesulfonic acid (PFOS)	18.6	17.2		ng/L		92	43 - 162
Perfluorononanesulfonic acid (PFNS)	19.2	19.9		ng/L		103	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	19.4	18.5		ng/L		96	30 - 138
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	37.5	39.5		ng/L		105	52 - 158
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	38.1	39.1		ng/L		103	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	38.4	41.4		ng/L		108	46 - 165
Perfluorooctanesulfonamide (PFOSA)	20.0	15.9		ng/L		80	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	20.0	20.6		ng/L		103	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	20.0	16.6		ng/L		83	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20.0	21.5		ng/L		108	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20.0	17.9		ng/L		90	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	100	102		ng/L		102	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	100	99.5		ng/L		99	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	15.0	17.8		ng/L		119	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	18.9	22.3		ng/L		118	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	20.0	21.4		ng/L		107	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	20.0	20.9		ng/L		104	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	18.7	19.7		ng/L		105	44 - 167

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-691924/5-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			18.9	19.1		ng/L		101	36 - 158		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			17.8	15.5		ng/L		87	56 - 144		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			40.0	37.0		ng/L		93	32 - 161		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			100	86.8		ng/L		87	39 - 156		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			100	77.0		ng/L		77	36 - 149		
Perfluorodecanesulfonic acid (PFDS)			19.3	18.6		ng/L		97	50 - 144		
Perfluoro-3-methoxypropanoic acid (PFMPA)			20.0	19.4		ng/L		97	48 - 150		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*86.1*		*10 - 130*
13C5 PFPeA	*84.3*		*40 - 150*
13C5 PFHxA	*89.6*		*40 - 150*
13C4 PFHpA	*80.4*		*40 - 150*
13C9 PFNA	*74.5*		*30 - 140*
13C6 PFDA	*79.9*		*20 - 140*
13C7 PFUnA	*80.2*		*20 - 140*
13C2 PFTeDA	*64.2*		*10 - 130*
13C3 PFBS	*85.1*		*25 - 150*
13C3 PFHxS	*78.9*		*25 - 150*
13C8 PFOS	*82.7*		*20 - 140*
d3-NMeFOSAA	*94.1*		*10 - 200*
d5-NEtFOSAA	*92.0*		*10 - 200*
13C2 PFDoA	*71.1*		*10 - 150*
13C2 4:2 FTS	*99.1*		*25 - 200*
13C2 6:2 FTS	*106*		*25 - 200*
13C2 8:2 FTS	*97.3*		*25 - 200*
13C3 HFPO-DA	*74.7*		*25 - 160*
d7-N-MeFOSE-M	*65.5*		*10 - 150*
d9-N-EtFOSE-M	*54.8*		*10 - 150*
d5-NEtPFOSA	*67.8*		*10 - 130*
d3-NMePFOSA	*65.5*		*10 - 130*
13C2 PFOA	*96.3*		*40 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

LCMS

Prep Batch: 691924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229248-1	DC330005-MW-6	Post-Treatment	Water	TOP Post Prep	
410-229248-2	DC330005-MW-1	Post-Treatment	Water	TOP Post Prep	
MB 410-691924/1-A	Method Blank	Post-Treatment	Water	TOP Post Prep	
MB 410-691924/2-A	Method Blank	Post-Treatment	Water	TOP Post Prep	
LCS 410-691924/3-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	
LCSD 410-691924/4-A	Lab Control Sample Dup	Post-Treatment	Water	TOP Post Prep	
LLCS 410-691924/5-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	

Analysis Batch: 693362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229248-1	DC330005-MW-6	Post-Treatment	Water	1633 TOPS	691924
410-229248-2	DC330005-MW-1	Post-Treatment	Water	1633 TOPS	691924
MB 410-691924/1-A	Method Blank	Post-Treatment	Water	1633 TOPS	691924
MB 410-691924/2-A	Method Blank	Post-Treatment	Water	1633 TOPS	691924
LCS 410-691924/3-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	691924
LCSD 410-691924/4-A	Lab Control Sample Dup	Post-Treatment	Water	1633 TOPS	691924
LLCS 410-691924/5-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	691924

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Client Sample ID: DC330005-MW-6
Lab Sample ID: 410-229248-1
Date Collected: 06/23/25 10:23
Matrix: Water
Date Received: 06/25/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			691924	S7AC	ELLE	08/28/25 11:44
Post-Treatment	Analysis	1633 TOPS		1	693362	QY4X	ELLE	09/02/25 12:02

Client Sample ID: DC330005-MW-1
Lab Sample ID: 410-229248-2
Date Collected: 06/23/25 11:05
Matrix: Water
Date Received: 06/25/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			691924	S7AC	ELLE	08/28/25 11:44
Post-Treatment	Analysis	1633 TOPS		1	693362	QY4X	ELLE	09/02/25 12:16

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633 TOPS	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633 TOPS	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633 TOPS	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633 TOPS	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633 TOPS	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633 TOPS	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
1633 TOPS	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
1633 TOPS	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
1633 TOPS	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
1633 TOPS	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Method	Method Description	Protocol	Laboratory
1633 TOPS	Fluorinated Alkyl Substances	EPA	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Job ID: 410-229248-2
Project/Site: Deluxe Cleaners (ATC Site) (DC330005)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-229248-1	DC330005-MW-6	Water	06/23/25 10:23	06/25/25 10:20	North Carolina
410-229248-2	DC330005-MW-1	Water	06/23/25 11:05	06/25/25 10:20	North Carolina



410-229248 Chain of Custody

/ironme

Chain of Custody Record

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	Sampler: NWS + RES	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159682-44160.1
Client Contact: Mandy Klaben	Phone: 919-847-4241	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #: DSO.PFAS
Address: 3921 Sunset Ridge Rd Suite 301	Due Date Requested: HH Standard			Preservation Codes: N - None
City: Raleigh	TAT Requested (days):			
State, Zip: NC, 27607	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DSO.PFAS			
Email: mklaben@harthickman.com	WO #:			
Project Name: Deluxe Cleaners (ATC Site) (DC330005)	Project #: 41025876			
Site: DSO.PFAS	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC330005-MW-6	6/23/25	1023	G	Water	N	N	X	X		*TOPs on HOLD!
DC330005-MW-1	6/23/25	1105	G	Water	N	N	X	X		
DC330005-DUP	6/23/25	—	G	Water	N	N	X	X		-Repoit J Flags
			G	Water			NV			-Repoit <MDL
DC330005-FB	6/23/25	1121	G	Water	N	N		X		* EDDs for
DC330005-EB	6/23/25	1119	G	Water	N	N		X		HH, DSCA, NC DEQ

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	6/24/25 0733	HH		6/24/25 1249	Eurofins
Relinquished by:	6/24/25 1640	Eurofins		Date/Time:	Company
Relinquished by:	Date/Time:	Company		6/24/25 1020	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: R: 3.8 C: 3.6

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-229248-2

Login Number: 229248
List Number: 1
Creator: Shortes, Erin K

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

EVERHART CLEANERS

DC410009

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/14/2025 5:14:07 PM

JOB DESCRIPTION

Everhart Cleaners

JOB NUMBER

410-228756-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/14/2025 5:14:07 PM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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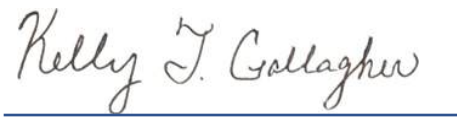


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Definitions/Glossary

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Qualifiers

LCMS

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-228756-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/19/2025 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.7°C.

Receipt Exceptions
The container count for the following sample did not match what was listed on the Chain-of-Custody (COC): DC410009-DUP (410-228756-3).
The laboratory received 3 total containers, while the COC lists 2 total containers.

PFAS
Method 1633A: Analyte Perfluorononanoic acid (PFNA) was marked as non-detect for sample DC410009-MW-15S (410-228756-1) due to a detection below RL and failing ion ratio.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Client Sample ID: DC410009-MW-15S — Lab Sample ID: 410-228756-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.9		3.6	0.98	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	4.1		1.8	0.53	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	5.5		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.6		1.8	0.71	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	13		1.8	0.80	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.8		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.5		1.8	0.71	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	16		1.8	1.2	ng/L	1		1633A	Total/NA

Client Sample ID: DC410009-MW-2RS — Lab Sample ID: 410-228756-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	16		3.5	0.97	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	26		1.8	0.53	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	28		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	19		1.8	0.70	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	73		1.8	0.79	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	8.4		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorodecanoic acid (PFDA)	4.1		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.1		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.6		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	11		1.8	0.70	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	3.2		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	140		1.8	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC410009-DUP — Lab Sample ID: 410-228756-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	16		3.4	0.95	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	27		1.7	0.52	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	30		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	18		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	66		1.7	0.78	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	8.9		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorodecanoic acid (PFDA)	4.8		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.0		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.7		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	11		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.9		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	150		1.7	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC410009-FB — Lab Sample ID: 410-228756-4

No Detections.

Client Sample ID: DC410009-EB — Lab Sample ID: 410-228756-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Client Sample ID: DC410009-MW-15S
Date Collected: 06/16/25 10:43
Date Received: 06/19/25 09:50

Lab Sample ID: 410-228756-1
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.9**		3.6	0.98	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluoropentanoic acid (PFPeA)	**4.1**		1.8	0.53	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorohexanoic acid (PFHxA)	**5.5**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluoroheptanoic acid (PFHpA)	**5.6**		1.8	0.71	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorooctanoic acid (PFOA)	**13**		1.8	0.80	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorononanoic acid (PFNA)	ND	cn	1.6	1.6	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorobutanesulfonic acid (PFBS)	**2.8**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorohexanesulfonic acid (PFHxS)	**5.5**		1.8	0.71	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorooctanesulfonic acid (PFOS)	**16**		1.8	1.2	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	0.53	ng/L		07/04/25 06:18	07/08/25 22:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.6	0.89	ng/L		07/04/25 06:18	07/08/25 22:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.6	0.89	ng/L		07/04/25 06:18	07/08/25 22:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.6	0.89	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.9	2.2	ng/L		07/04/25 06:18	07/08/25 22:16	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.9	3.6	ng/L		07/04/25 06:18	07/08/25 22:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.8	1.2	ng/L		07/04/25 06:18	07/08/25 22:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1

Client Sample ID: DC410009-MW-15S

Lab Sample ID: 410-228756-1

Date Collected: 06/16/25 10:43

Matrix: Water

Date Received: 06/19/25 09:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 22:16	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.6	0.89	ng/L		07/04/25 06:18	07/08/25 22:16	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.9	2.5	ng/L		07/04/25 06:18	07/08/25 22:16	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.9	2.2	ng/L		07/04/25 06:18	07/08/25 22:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.0*		*5 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C5 PFPeA	*106*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C5 PFHxA	*92.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C4 PFHpA	*89.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C8 PFOA	*94.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C9 PFNA	*98.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C6 PFDA	*93.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C7 PFUnA	*95.7*		*30 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C2 PFTeDA	*92.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C3 PFBS	*88.0*		*40 - 135*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C3 PFHxS	*94.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C8 PFOS	*89.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C8 FOSA	*78.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
d3-NMeFOSAA	*86.1*		*40 - 170*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
d5-NEtFOSAA	*81.5*		*25 - 135*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C2 4:2 FTS	*91.4*		*40 - 200*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C2 6:2 FTS	*97.4*		*40 - 200*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C2 8:2 FTS	*89.8*		*40 - 300*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C3 HFPO-DA	*93.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
d7-N-MeFOSE-M	*65.5*		*10 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
d9-N-EtFOSE-M	*64.9*		*10 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
d5-NEtPFOSA	*68.9*		*10 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
d3-NMePFOSA	*70.9*		*10 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*
13C2 PFDoA	*88.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 22:16*	*1*

Client Sample ID: DC410009-MW-2RS

Lab Sample ID: 410-228756-2

Date Collected: 06/16/25 12:16

Matrix: Water

Date Received: 06/19/25 09:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**16**		3.5	0.97	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluoropentanoic acid (PFPeA)	**26**		1.8	0.53	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorohexanoic acid (PFHxA)	**28**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluoroheptanoic acid (PFHpA)	**19**		1.8	0.70	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorooctanoic acid (PFOA)	**73**		1.8	0.79	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorononanoic acid (PFNA)	**8.4**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorodecanoic acid (PFDA)	**4.1**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1

Client Sample ID: DC410009-MW-2RS
Date Collected: 06/16/25 12:16
Date Received: 06/19/25 09:50

Lab Sample ID: 410-228756-2
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorobutanesulfonic acid (PFBS)	**6.1**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluoropentanesulfonic acid (PFPeS)	**2.6**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorohexanesulfonic acid (PFHxS)	**11**		1.8	0.70	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluoroheptanesulfonic acid (PFHpS)	**3.2**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorooctanesulfonic acid (PFOS)	**140**		1.8	1.1	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	0.53	ng/L		07/04/25 06:18	07/08/25 10:28	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.88	ng/L		07/04/25 06:18	07/08/25 10:28	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	0.88	ng/L		07/04/25 06:18	07/08/25 10:28	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.88	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.8	2.2	ng/L		07/04/25 06:18	07/08/25 10:28	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.8	3.5	ng/L		07/04/25 06:18	07/08/25 10:28	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.8	1.2	ng/L		07/04/25 06:18	07/08/25 10:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 10:28	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.88	ng/L		07/04/25 06:18	07/08/25 10:28	1

Client Sample ID: DC410009-MW-2RS

Lab Sample ID: 410-228756-2

Date Collected: 06/16/25 12:16

Matrix: Water

Date Received: 06/19/25 09:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.8	2.5	ng/L		07/04/25 06:18	07/08/25 10:28	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.8	2.2	ng/L		07/04/25 06:18	07/08/25 10:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*5 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C5 PFPeA	*106*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C5 PFHxA	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C4 PFHpA	*104*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C8 PFOA	*102*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C9 PFNA	*103*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C6 PFDA	*91.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C7 PFUnA	*88.8*		*30 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C2 PFTeDA	*85.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C3 PFBS	*100*		*40 - 135*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C3 PFHxS	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C8 PFOS	*102*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C8 FOSA	*90.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
d3-NMeFOSAA	*95.8*		*40 - 170*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
d5-NEtFOSAA	*92.6*		*25 - 135*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C2 4:2 FTS	*95.3*		*40 - 200*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C2 6:2 FTS	*98.2*		*40 - 200*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C2 8:2 FTS	*92.6*		*40 - 300*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C3 HFPO-DA	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
d7-N-MeFOSE-M	*77.1*		*10 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
d9-N-EtFOSE-M	*77.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
d5-NEtPFOSA	*81.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
d3-NMePFOSA	*82.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*
13C2 PFDoA	*85.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 10:28*	*1*

Client Sample ID: DC410009-DUP

Lab Sample ID: 410-228756-3

Date Collected: 06/16/25 00:00

Matrix: Water

Date Received: 06/19/25 09:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**16**		3.4	0.95	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluoropentanoic acid (PFPeA)	**27**		1.7	0.52	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorohexanoic acid (PFHxA)	**30**		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluoroheptanoic acid (PFHpA)	**18**		1.7	0.69	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorooctanoic acid (PFOA)	**66**		1.7	0.78	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorononanoic acid (PFNA)	**8.9**		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorodecanoic acid (PFDA)	**4.8**		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorobutanesulfonic acid (PFBS)	**6.0**		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluoropentanesulfonic acid (PFPeS)	**2.7**		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1

Client Sample ID: DC410009-DUP
Date Collected: 06/16/25 00:00
Date Received: 06/19/25 09:50

Lab Sample ID: 410-228756-3
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**11**		1.7	0.69	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluoroheptanesulfonic acid (PFHpS)	**2.9**		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorooctanesulfonic acid (PFOS)	**150**		1.7	1.1	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.52	ng/L		07/04/25 06:18	07/08/25 10:42	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.4	0.86	ng/L		07/04/25 06:18	07/08/25 10:42	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.4	0.86	ng/L		07/04/25 06:18	07/08/25 10:42	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.4	0.86	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.6	2.2	ng/L		07/04/25 06:18	07/08/25 10:42	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.6	3.4	ng/L		07/04/25 06:18	07/08/25 10:42	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/04/25 06:18	07/08/25 10:42	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.43	ng/L		07/04/25 06:18	07/08/25 10:42	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.4	0.86	ng/L		07/04/25 06:18	07/08/25 10:42	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.6	2.4	ng/L		07/04/25 06:18	07/08/25 10:42	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.6	2.2	ng/L		07/04/25 06:18	07/08/25 10:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.9*		*5 - 130*	*07/04/25 06:18*	*07/08/25 10:42*	*1*
13C5 PFPeA	*103*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:42*	*1*
13C5 PFHxA	*98.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 10:42*	*1*

Client Sample ID: DC410009-DUP

Lab Sample ID: 410-228756-3

Date Collected: 06/16/25 00:00

Matrix: Water

Date Received: 06/19/25 09:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	104		40 - 130	07/04/25 06:18	07/08/25 10:42	1
13C8 PFOA	100		40 - 130	07/04/25 06:18	07/08/25 10:42	1
13C9 PFNA	99.4		40 - 130	07/04/25 06:18	07/08/25 10:42	1
13C6 PFDA	95.2		40 - 130	07/04/25 06:18	07/08/25 10:42	1
13C7 PFUnA	91.7		30 - 130	07/04/25 06:18	07/08/25 10:42	1
13C2 PFTeDA	82.9		10 - 130	07/04/25 06:18	07/08/25 10:42	1
13C3 PFBS	101		40 - 135	07/04/25 06:18	07/08/25 10:42	1
13C3 PFHxS	104		40 - 130	07/04/25 06:18	07/08/25 10:42	1
13C8 PFOS	99.3		40 - 130	07/04/25 06:18	07/08/25 10:42	1
13C8 FOSA	91.3		40 - 130	07/04/25 06:18	07/08/25 10:42	1
d3-NMeFOSAA	96.0		40 - 170	07/04/25 06:18	07/08/25 10:42	1
d5-NEtFOSAA	91.3		25 - 135	07/04/25 06:18	07/08/25 10:42	1
13C2 4:2 FTS	99.0		40 - 200	07/04/25 06:18	07/08/25 10:42	1
13C2 6:2 FTS	102		40 - 200	07/04/25 06:18	07/08/25 10:42	1
13C2 8:2 FTS	92.6		40 - 300	07/04/25 06:18	07/08/25 10:42	1
13C3 HFPO-DA	105		40 - 130	07/04/25 06:18	07/08/25 10:42	1
d7-N-MeFOSE-M	76.6		10 - 130	07/04/25 06:18	07/08/25 10:42	1
d9-N-EtFOSE-M	79.1		10 - 130	07/04/25 06:18	07/08/25 10:42	1
d5-NEtPFOSA	82.9		10 - 130	07/04/25 06:18	07/08/25 10:42	1
d3-NMePFOSA	83.1		10 - 130	07/04/25 06:18	07/08/25 10:42	1
13C2 PFDoA	90.1		10 - 130	07/04/25 06:18	07/08/25 10:42	1

Client Sample ID: DC410009-FB

Lab Sample ID: 410-228756-4

Date Collected: 06/16/25 12:53

Matrix: Water

Date Received: 06/19/25 09:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1	0.86	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.47	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.63	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.71	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.63	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		07/04/25 06:18	07/08/25 11:09	1

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Client Sample ID: DC410009-FB
Date Collected: 06/16/25 12:53
Date Received: 06/19/25 09:50

Lab Sample ID: 410-228756-4
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 11:09	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 11:09	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	2.0	ng/L		07/04/25 06:18	07/08/25 11:09	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	3.1	ng/L		07/04/25 06:18	07/08/25 11:09	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/04/25 06:18	07/08/25 11:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 11:09	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 11:09	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.8	2.2	ng/L		07/04/25 06:18	07/08/25 11:09	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	2.0	ng/L		07/04/25 06:18	07/08/25 11:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95.5*		*5 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C5 PFPeA	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C5 PFHxA	*98.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C4 PFHpA	*98.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C8 PFOA	*91.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C9 PFNA	*95.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C6 PFDA	*91.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C7 PFUnA	*93.3*		*30 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C2 PFTeDA	*84.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C3 PFBS	*84.8*		*40 - 135*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C3 PFHxS	*94.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*
13C8 PFOS	*94.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:09*	*1*

Client Sample ID: DC410009-FB

Lab Sample ID: 410-228756-4

Date Collected: 06/16/25 12:53

Matrix: Water

Date Received: 06/19/25 09:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	83.9		40 - 130	07/04/25 06:18	07/08/25 11:09	1
d3-NMeFOSAA	88.1		40 - 170	07/04/25 06:18	07/08/25 11:09	1
d5-NEtFOSAA	86.9		25 - 135	07/04/25 06:18	07/08/25 11:09	1
13C2 4:2 FTS	93.3		40 - 200	07/04/25 06:18	07/08/25 11:09	1
13C2 6:2 FTS	97.0		40 - 200	07/04/25 06:18	07/08/25 11:09	1
13C2 8:2 FTS	89.0		40 - 300	07/04/25 06:18	07/08/25 11:09	1
13C3 HFPO-DA	99.0		40 - 130	07/04/25 06:18	07/08/25 11:09	1
d7-N-MeFOSE-M	77.7		10 - 130	07/04/25 06:18	07/08/25 11:09	1
d9-N-EtFOSE-M	69.3		10 - 130	07/04/25 06:18	07/08/25 11:09	1
d5-NEtPFOSA	74.9		10 - 130	07/04/25 06:18	07/08/25 11:09	1
d3-NMePFOSA	78.0		10 - 130	07/04/25 06:18	07/08/25 11:09	1
13C2 PFDoA	91.8		10 - 130	07/04/25 06:18	07/08/25 11:09	1

Client Sample ID: DC410009-EB

Lab Sample ID: 410-228756-5

Date Collected: 06/16/25 12:50

Matrix: Water

Date Received: 06/19/25 09:50

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.9	0.80	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.44	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.58	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.66	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.58	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.95	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.44	ng/L		07/04/25 06:18	07/08/25 11:23	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.9	0.73	ng/L		07/04/25 06:18	07/08/25 11:23	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.9	0.73	ng/L		07/04/25 06:18	07/08/25 11:23	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.9	0.73	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1

Client Sample ID: DC410009-EB
Date Collected: 06/16/25 12:50
Date Received: 06/19/25 09:50

Lab Sample ID: 410-228756-5
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.3	1.8	ng/L		07/04/25 06:18	07/08/25 11:23	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.3	2.9	ng/L		07/04/25 06:18	07/08/25 11:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.0	ng/L		07/04/25 06:18	07/08/25 11:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.36	ng/L		07/04/25 06:18	07/08/25 11:23	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.9	0.73	ng/L		07/04/25 06:18	07/08/25 11:23	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.3	2.0	ng/L		07/04/25 06:18	07/08/25 11:23	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.3	1.8	ng/L		07/04/25 06:18	07/08/25 11:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*5 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C5 PFPeA	*99.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C5 PFHxA	*94.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C4 PFHpA	*98.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C8 PFOA	*94.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C9 PFNA	*95.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C6 PFDA	*95.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C7 PFUnA	*94.0*		*30 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C2 PFTeDA	*87.8*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C3 PFBS	*95.4*		*40 - 135*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C3 PFHxS	*97.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C8 PFOS	*98.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C8 FOSA	*82.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
d3-NMeFOSAA	*85.1*		*40 - 170*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
d5-NEtFOSAA	*86.4*		*25 - 135*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C2 4:2 FTS	*92.5*		*40 - 200*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C2 6:2 FTS	*98.3*		*40 - 200*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C2 8:2 FTS	*91.7*		*40 - 300*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
13C3 HFPO-DA	*99.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
d7-N-MeFOSE-M	*77.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
d9-N-EtFOSE-M	*73.9*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*
d5-NEtPFOSA	*75.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:23*	*1*

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Client Sample ID: DC410009-EB
Date Collected: 06/16/25 12:50
Date Received: 06/19/25 09:50

Lab Sample ID: 410-228756-5
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMePFOSA	80.3		10 - 130	07/04/25 06:18	07/08/25 11:23	1
13C2 PFDoA	87.9		10 - 130	07/04/25 06:18	07/08/25 11:23	1

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-228756-1	DC410009-MW-15S	94.0	106	92.9	89.9	94.0	98.2	93.0	95.7
410-228756-2	DC410009-MW-2RS	101	106	101	104	102	103	91.1	88.8
410-228756-3	DC410009-DUP	99.9	103	98.6	104	100	99.4	95.2	91.7
410-228756-4	DC410009-FB	95.5	101	98.6	98.7	91.0	95.0	91.6	93.3
410-228756-5	DC410009-EB	102	99.7	94.9	98.2	94.6	95.5	95.5	94.0
LCS 410-667147/15-A	Lab Control Sample	103	103	95.0	98.9	97.4	96.7	93.1	96.3
LCSD 410-667147/17-A	Lab Control Sample Dup	100	110	105	106	109	107	104	101
LLCS 410-667147/16-A	Lab Control Sample	105	104	95.8	103	97.5	100	98.7	95.8
MB 410-667147/14-A	Method Blank	99.1	99.6	87.5	78.1	77.2	75.3	73.7	69.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-228756-1	DC410009-MW-15S	92.6	88.0	94.3	89.9	78.7	86.1	81.5	91.4
410-228756-2	DC410009-MW-2RS	85.4	100	101	102	90.0	95.8	92.6	95.3
410-228756-3	DC410009-DUP	82.9	101	104	99.3	91.3	96.0	91.3	99.0
410-228756-4	DC410009-FB	84.3	84.8	94.4	94.7	83.9	88.1	86.9	93.3
410-228756-5	DC410009-EB	87.8	95.4	97.2	98.4	82.9	85.1	86.4	92.5
LCS 410-667147/15-A	Lab Control Sample	80.0	102	93.5	93.5	85.8	90.2	87.2	97.7
LCSD 410-667147/17-A	Lab Control Sample Dup	104	99.0	100	103	86.2	94.3	92.0	93.5
LLCS 410-667147/16-A	Lab Control Sample	80.6	97.8	98.1	97.2	87.4	91.5	87.1	99.8
MB 410-667147/14-A	Method Blank	45.0	70.5	70.1	72.8	80.7	66.9	65.0	92.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-228756-1	DC410009-MW-15S	97.4	89.8	93.2	65.5	64.9	68.9	70.9	88.7
410-228756-2	DC410009-MW-2RS	98.2	92.6	101	77.1	77.6	81.3	82.4	85.6
410-228756-3	DC410009-DUP	102	92.6	105	76.6	79.1	82.9	83.1	90.1
410-228756-4	DC410009-FB	97.0	89.0	99.0	77.7	69.3	74.9	78.0	91.8
410-228756-5	DC410009-EB	98.3	91.7	99.5	77.2	73.9	75.2	80.3	87.9
LCS 410-667147/15-A	Lab Control Sample	97.8	89.1	99.8	73.7	69.7	77.5	76.4	86.3
LCSD 410-667147/17-A	Lab Control Sample Dup	96.9	94.4	105	70.0	65.2	83.3	81.2	104
LLCS 410-667147/16-A	Lab Control Sample	101	97.4	103	62.2	56.7	76.9	77.3	92.7
MB 410-667147/14-A	Method Blank	83.2	70.4	95.2	53.6	48.0	65.4	72.5	71.3

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-667147/14-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/04/25 06:18	07/08/25 09:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-667147/14-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/04/25 06:18	07/08/25 09:20	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.1*		*5 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C5 PFPeA	*99.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C5 PFHxA	*87.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C4 PFHpA	*78.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 PFOA	*77.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C9 PFNA	*75.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C6 PFDA	*73.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C7 PFUnA	*69.1*		*30 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 PFTeDA	*45.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 PFBS	*70.5*		*40 - 135*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 PFHxS	*70.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 PFOS	*72.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 FOSA	*80.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d3-NMeFOSAA	*66.9*		*40 - 170*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d5-NEtFOSAA	*65.0*		*25 - 135*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 4:2 FTS	*92.5*		*40 - 200*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 6:2 FTS	*83.2*		*40 - 200*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 8:2 FTS	*70.4*		*40 - 300*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 HFPO-DA	*95.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d7-N-MeFOSE-M	*53.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d9-N-EtFOSE-M	*48.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d5-NEtPFOSA	*65.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d3-NMePFOSA	*72.5*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 PFDoA	*71.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	69.3		ng/L		87	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	34.4		ng/L		86	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	32.7		ng/L		82	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	32.1		ng/L		80	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	32.7		ng/L		82	70 - 150
Perfluorononanoic acid (PFNA)	40.0	30.7		ng/L		77	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	35.8		ng/L		89	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	30.7		ng/L		77	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	38.3		ng/L		96	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	31.8		ng/L		80	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.8		ng/L		77	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	27.1		ng/L		76	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	31.9		ng/L		85	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	29.2		ng/L		80	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	32.9		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	30.2		ng/L		81	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	30.2		ng/L		78	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	29.6		ng/L		77	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	24.0		ng/L		62	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	62.8		ng/L		84	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	66.4		ng/L		87	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	69.9		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	36.2		ng/L		91	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	33.8		ng/L		84	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.6		ng/L		84	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	31.7		ng/L		79	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.7		ng/L		84	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	180		ng/L		90	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	176		ng/L		88	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.0		ng/L		87	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	30.9		ng/L		82	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.1		ng/L		95	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.0		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.5		ng/L		81	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	29.6		ng/L		79	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	27.1		ng/L		72	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	32.6		ng/L		92	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	68.4		ng/L		86	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	158		ng/L		79	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	164		ng/L		82	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*103*		*5 - 130*
13C5 PFPeA	*103*		*40 - 130*
13C5 PFHxA	*95.0*		*40 - 130*
13C4 PFHpA	*98.9*		*40 - 130*
13C8 PFOA	*97.4*		*40 - 130*
13C9 PFNA	*96.7*		*40 - 130*
13C6 PFDA	*93.1*		*40 - 130*
13C7 PFUnA	*96.3*		*30 - 130*
13C2 PFTeDA	*80.0*		*10 - 130*
13C3 PFBS	*102*		*40 - 135*
13C3 PFHxS	*93.5*		*40 - 130*
13C8 PFOS	*93.5*		*40 - 130*
13C8 FOSA	*85.8*		*40 - 130*
d3-NMeFOSAA	*90.2*		*40 - 170*
d5-NEtFOSAA	*87.2*		*25 - 135*
13C2 4:2 FTS	*97.7*		*40 - 200*
13C2 6:2 FTS	*97.8*		*40 - 200*
13C2 8:2 FTS	*89.1*		*40 - 300*
13C3 HFPO-DA	*99.8*		*40 - 130*
d7-N-MeFOSE-M	*73.7*		*10 - 130*
d9-N-EtFOSE-M	*69.7*		*10 - 130*
d5-NEtPFOSA	*77.5*		*10 - 130*
d3-NMePFOSA	*76.4*		*10 - 130*
13C2 PFDoA	*86.3*		*10 - 130*

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	69.6		ng/L		87	70 - 140	0	30
Perfluoropentanoic acid (PFPeA)			40.0	34.5		ng/L		86	65 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	31.5		ng/L		79	70 - 145	4	30
Perfluoroheptanoic acid (PFHpA)			40.0	32.0		ng/L		80	70 - 150	1	30
Perfluorooctanoic acid (PFOA)			40.0	32.7		ng/L		82	70 - 150	0	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	33.4		ng/L		84	70 - 150	8	30
Perfluorodecanoic acid (PFDA)	40.0	35.5		ng/L		89	70 - 140	1	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.1		ng/L		93	70 - 145	19	30
Perfluorododecanoic acid (PFDoA)	40.0	35.2		ng/L		88	70 - 140	8	30
Perfluorotridecanoic acid (PFTrDA)	40.0	34.0		ng/L		85	65 - 140	7	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	28.1		ng/L		70	60 - 140	9	30
Perfluorobutanesulfonic acid (PFBS)	35.5	30.8		ng/L		87	60 - 145	13	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	30.1		ng/L		80	65 - 140	6	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	28.4		ng/L		78	65 - 145	3	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.3		ng/L		87	70 - 150	1	30
Perfluorooctanesulfonic acid (PFOS)	37.2	31.7		ng/L		85	55 - 150	5	30
Perfluorononanesulfonic acid (PFNS)	38.5	30.9		ng/L		80	65 - 145	2	30
Perfluorodecanesulfonic acid (PFDS)	38.6	31.1		ng/L		81	60 - 145	5	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	30.0		ng/L		77	50 - 145	22	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	67.7		ng/L		90	70 - 145	7	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	68.8		ng/L		90	65 - 155	4	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	70.1		ng/L		91	60 - 150	0	30
Perfluorooctanesulfonamide (PFOSA)	40.0	39.3		ng/L		98	70 - 145	8	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	35.9		ng/L		90	60 - 150	6	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	35.8		ng/L		90	65 - 145	7	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	33.4		ng/L		84	50 - 140	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.5		ng/L		91	70 - 145	8	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	181		ng/L		90	70 - 145	0	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	178		ng/L		89	70 - 135	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.8		ng/L		89	70 - 140	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	30.7		ng/L		81	65 - 145	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	36.9		ng/L		92	55 - 140	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.4		ng/L		81	60 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	36.8		ng/L		92	50 - 150	12	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	29.7		ng/L		79	70 - 155	0	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	28.6		ng/L		76	55 - 160	5	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	31.2		ng/L		87	70 - 140	4	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	67.5		ng/L		84	65 - 130	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	165		ng/L		82	70 - 135	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	150		ng/L		75	50 - 145	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*100*		*5 - 130*
13C5 PFPeA	*110*		*40 - 130*
13C5 PFHxA	*105*		*40 - 130*
13C4 PFHpA	*106*		*40 - 130*
13C8 PFOA	*109*		*40 - 130*
13C9 PFNA	*107*		*40 - 130*
13C6 PFDA	*104*		*40 - 130*
13C7 PFUnA	*101*		*30 - 130*
13C2 PFTeDA	*104*		*10 - 130*
13C3 PFBS	*99.0*		*40 - 135*
13C3 PFHxS	*100*		*40 - 130*
13C8 PFOS	*103*		*40 - 130*
13C8 FOSA	*86.2*		*40 - 130*
d3-NMeFOSAA	*94.3*		*40 - 170*
d5-NEtFOSAA	*92.0*		*25 - 135*
13C2 4:2 FTS	*93.5*		*40 - 200*
13C2 6:2 FTS	*96.9*		*40 - 200*
13C2 8:2 FTS	*94.4*		*40 - 300*
13C3 HFPO-DA	*105*		*40 - 130*
d7-N-MeFOSE-M	*70.0*		*10 - 130*
d9-N-EtFOSE-M	*65.2*		*10 - 130*
d5-NEtPFOSA	*83.3*		*10 - 130*
d3-NMePFOSA	*81.2*		*10 - 130*
13C2 PFDoA	*104*		*10 - 130*

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.14		ng/L		89	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	4.03		ng/L		101	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.66		ng/L		92	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.30		ng/L		82	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.74		ng/L		94	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.35		ng/L		84	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.99		ng/L		100	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.40		ng/L		85	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.96		ng/L		99	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.87		ng/L		97	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.78		ng/L		95	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.95		ng/L		83	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.49		ng/L		93	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.40		ng/L		93	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.37		ng/L		88	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.42		ng/L		92	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.04		ng/L		79	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.16		ng/L		82	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.58		ng/L		66	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.79		ng/L		90	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.04		ng/L		92	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.07		ng/L		92	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.01		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.58		ng/L		90	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.57		ng/L		89	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.30		ng/L		82	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.54		ng/L		89	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	20.6		ng/L		103	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.2		ng/L		96	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.94		ng/L		98	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.15		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.88		ng/L		97	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro-4-methoxybutanoic acid (PFMBA)			4.00	3.48		ng/L		87	60 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			4.00	4.10		ng/L		103	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			3.74	2.97		ng/L		79	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			3.78	2.86		ng/L		76	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			3.57	3.45		ng/L		97	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			8.00	8.04		ng/L		101	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			20.0	18.4		ng/L		92	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			20.0	16.9		ng/L		84	50 - 145		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*95.8*		*40 - 130*
13C4 PFHpA	*103*		*40 - 130*
13C8 PFOA	*97.5*		*40 - 130*
13C9 PFNA	*100*		*40 - 130*
13C6 PFDA	*98.7*		*40 - 130*
13C7 PFUnA	*95.8*		*30 - 130*
13C2 PFTeDA	*80.6*		*10 - 130*
13C3 PFBS	*97.8*		*40 - 135*
13C3 PFHxS	*98.1*		*40 - 130*
13C8 PFOS	*97.2*		*40 - 130*
13C8 FOSA	*87.4*		*40 - 130*
d3-NMeFOSAA	*91.5*		*40 - 170*
d5-NEtFOSAA	*87.1*		*25 - 135*
13C2 4:2 FTS	*99.8*		*40 - 200*
13C2 6:2 FTS	*101*		*40 - 200*
13C2 8:2 FTS	*97.4*		*40 - 300*
13C3 HFPO-DA	*103*		*40 - 130*
d7-N-MeFOSE-M	*62.2*		*10 - 130*
d9-N-EtFOSE-M	*56.7*		*10 - 130*
d5-NEtPFOSA	*76.9*		*10 - 130*
d3-NMePFOSA	*77.3*		*10 - 130*
13C2 PFDoA	*92.7*		*10 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

LCMS

Prep Batch: 667147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-228756-1	DC410009-MW-15S	Total/NA	Water	1633A	
410-228756-2	DC410009-MW-2RS	Total/NA	Water	1633A	
410-228756-3	DC410009-DUP	Total/NA	Water	1633A	
410-228756-4	DC410009-FB	Total/NA	Water	1633A	
410-228756-5	DC410009-EB	Total/NA	Water	1633A	
MB 410-667147/14-A	Method Blank	Total/NA	Water	1633A	
LCS 410-667147/15-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-667147/17-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-667147/16-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 668033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-228756-1	DC410009-MW-15S	Total/NA	Water	1633A	667147
410-228756-2	DC410009-MW-2RS	Total/NA	Water	1633A	667147
410-228756-3	DC410009-DUP	Total/NA	Water	1633A	667147
410-228756-4	DC410009-FB	Total/NA	Water	1633A	667147
410-228756-5	DC410009-EB	Total/NA	Water	1633A	667147
MB 410-667147/14-A	Method Blank	Total/NA	Water	1633A	667147
LCS 410-667147/15-A	Lab Control Sample	Total/NA	Water	1633A	667147
LCSD 410-667147/17-A	Lab Control Sample Dup	Total/NA	Water	1633A	667147
LLCS 410-667147/16-A	Lab Control Sample	Total/NA	Water	1633A	667147

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Client Sample ID: DC410009-MW-15S
Lab Sample ID: 410-228756-1
Date Collected: 06/16/25 10:43
Matrix: Water
Date Received: 06/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 22:16

Client Sample ID: DC410009-MW-2RS
Lab Sample ID: 410-228756-2
Date Collected: 06/16/25 12:16
Matrix: Water
Date Received: 06/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 10:28

Client Sample ID: DC410009-DUP
Lab Sample ID: 410-228756-3
Date Collected: 06/16/25 00:00
Matrix: Water
Date Received: 06/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 10:42

Client Sample ID: DC410009-FB
Lab Sample ID: 410-228756-4
Date Collected: 06/16/25 12:53
Matrix: Water
Date Received: 06/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 11:09

Client Sample ID: DC410009-EB
Lab Sample ID: 410-228756-5
Date Collected: 06/16/25 12:50
Matrix: Water
Date Received: 06/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 11:23

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: Everhart Cleaners

Job ID: 410-228756-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-228756-1	DC410009-MW-15S	Water	06/16/25 10:43	06/19/25 09:50
410-228756-2	DC410009-MW-2RS	Water	06/16/25 12:16	06/19/25 09:50
410-228756-3	DC410009-DUP	Water	06/16/25 00:00	06/19/25 09:50
410-228756-4	DC410009-FB	Water	06/16/25 12:53	06/19/25 09:50
410-228756-5	DC410009-EB	Water	06/16/25 12:50	06/19/25 09:50



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Chain of Custody Record

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Mandy Klaben	Sampler: Rachel Schmidt & Nick Stone	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159681-44159.1
Company: Hart & Hickman, PC	Phone: 586-457-0233	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Address: 3921 Sunset Ridge Rd Suite 301	PWSID:	Analysis Requested		Job #: DSO.PFAS
City: Raleigh	Due Date Requested:			Preservation Codes: N - None
State, Zip: NC, 27607	TAT Requested (days): Standard H&H (10 days)			
Phone: 704-887-4608(Tel)	Compliance Project: Δ Yes Δ No			
Email: mklaben@harthickman.com	PO #: DSO.PFAS			
Project Name: Everhart Cleaners (DC410009)	WO #:			Other:
Site:	Project #: 41025876			
	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC410009-MW-15S	6/16/25	1043	G	Water	N	N	X	X	3	* Hold TOP analysis *
DC410009-MW-2RS	6/16/25	1216	G	Water	N	N	X	X	3	* Hold TOP analysis *
DC410009-DUP	6/16/25	—	G	Water	N	N		X	2	
				Water						
DC410009-FB	6/16/25	1253	G	Water	N	N		X	2	* Please report J flags
DC410009-EB	6/16/25	1250	G	Water	N	N		X	2	+ report on <MDL
										* EDD formats:
										H+H, NCDEQ, DSCA

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Rachel Schmidt Nick Stone	Date/Time: 6/18/25 1655	Company: H+H	Received by: DW
Relinquished by:	Date/Time: 061825 1700	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Received by: DW	Date/Time: 6.18.25 17:00	Company	
Received by:	Date/Time:	Company	
Received by:	Date/Time: 6/19/25 0950	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: R4.9/C4.7

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-228756-1

Login Number: 228756
List Number: 1
Creator: Moeller, Melanie

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

FABRIC CARE CENTER

DC740014

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/15/2025 7:06:32 PM

JOB DESCRIPTION

Fabric Care Center (DC740014)

JOB NUMBER

410-230467-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/15/2025 7:06:32 PM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

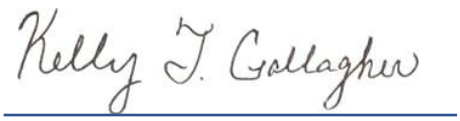


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-230467-1
Project/Site: Fabric Care Center (DC740014)

Qualifiers

LCMS

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-230467-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/28/2025 11:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

PFAS
Method 1633A: Target analyte Perfluorododecanesulfonic acid (PFDoS) has a relative percentage deviation (%RPD) outside of the QC acceptance limit in the Laboratory Control Spike Duplicate associated with samples DC740014-MW-4 (410-230467-1), DC740014-MW-2 (410-230467-2), DC740014-DUP (410-230467-3), DC740014-FB (410-230467-4) and DC740014-EB (410-230467-5) . Since the individual recoveries meet acceptance limits and the analyte is not detected, the data is reported.

Method 1633A: The labeled isotopes Perfluorooctanesulfonic acid (PFOS) are outside QC acceptance limits. Since the recovery in sample DC740014-EB (410-230467-5) is less than 200%, the data is reported.

Method 1633A: Analyte Perfluorononanoic acid (PFNA) and Perfluoroheptanesulfonic acid (PFHpS) was marked as non-detect for sample DC740014-MW-4 (410-230467-1) due to a detection below RL and failing ion ratio.

Method 1633A: The transition mass ratio for Perfluorooctanesulfonic acid (PFOS) in sample DC740014-MW-2 (410-230467-2) in analytical batch 410-670538 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

Method 1633A: The transition mass ratio for Perfluorooctanesulfonic acid (PFOS) in sample DC740014-DUP (410-230467-3) in analytical batch 410-670538 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-1

Client Sample ID: DC740014-MW-4 — Lab Sample ID: 410-230467-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	9.1		1.7	0.51	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	10		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.8		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	15		1.7	0.77	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.2		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.5	J	1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	40		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	76		1.7	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC740014-MW-2 — Lab Sample ID: 410-230467-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.5	J	3.2	0.88	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	11		1.6	0.48	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	10		1.6	0.40	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	13		1.6	0.64	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	45		1.6	0.72	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	5.1		1.6	0.40	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.7		1.6	0.40	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.2	J	1.6	0.40	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.9		1.6	0.64	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.0		1.6	0.40	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	24	I cn	1.6	1.0	ng/L	1		1633A	Total/NA

Client Sample ID: DC740014-DUP — Lab Sample ID: 410-230467-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.4	J	3.3	0.90	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	11		1.6	0.49	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	10		1.6	0.41	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	12		1.6	0.65	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	45		1.6	0.73	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	5.3		1.6	0.41	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.5	J	1.6	0.41	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.1	J	1.6	0.41	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.2		1.6	0.65	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.8		1.6	0.41	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	26	I cn	1.6	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC740014-FB — Lab Sample ID: 410-230467-4

No Detections.

Client Sample ID: DC740014-EB — Lab Sample ID: 410-230467-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-1

Client Sample ID: DC740014-MW-4
Date Collected: 06/26/25 09:47
Date Received: 06/28/25 11:10

Lab Sample ID: 410-230467-1
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.4	0.94	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluoropentanoic acid (PFPeA)	**9.1**		1.7	0.51	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorohexanoic acid (PFHxA)	**10**		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluoroheptanoic acid (PFHpA)	**5.8**		1.7	0.69	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorooctanoic acid (PFOA)	**15**		1.7	0.77	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorononanoic acid (PFNA)	ND	cn	0.51	0.51	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorobutanesulfonic acid (PFBS)	**3.2**		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluoropentanesulfonic acid (PFPeS)	**1.5**	**J**	1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorohexanesulfonic acid (PFHxS)	**40**		1.7	0.69	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1.2	1.2	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorooctanesulfonic acid (PFOS)	**76**		1.7	1.1	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.7	0.51	ng/L		07/14/25 06:25	07/15/25 05:28	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.4	0.86	ng/L		07/14/25 06:25	07/15/25 05:28	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.4	0.86	ng/L		07/14/25 06:25	07/15/25 05:28	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.4	0.86	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.6	2.1	ng/L		07/14/25 06:25	07/15/25 05:28	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.6	3.4	ng/L		07/14/25 06:25	07/15/25 05:28	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/14/25 06:25	07/15/25 05:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1

Client Sample ID: DC740014-MW-4
Lab Sample ID: 410-230467-1
Date Collected: 06/26/25 09:47
Matrix: Water
Date Received: 06/28/25 11:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.43	ng/L		07/14/25 06:25	07/15/25 05:28	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.4	0.86	ng/L		07/14/25 06:25	07/15/25 05:28	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.6	2.4	ng/L		07/14/25 06:25	07/15/25 05:28	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.6	2.1	ng/L		07/14/25 06:25	07/15/25 05:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*83.4*		*5 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C5 PFPeA	*82.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C5 PFHxA	*82.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C4 PFHpA	*80.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C8 PFOA	*79.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C9 PFNA	*91.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C6 PFDA	*79.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C7 PFUnA	*81.6*		*30 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C2 PFTeDA	*74.4*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C3 PFBS	*93.7*		*40 - 135*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C3 PFHxS	*87.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C8 PFOS	*92.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C8 FOSA	*89.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
d3-NMeFOSAA	*53.8*		*40 - 170*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
d5-NEtFOSAA	*66.6*		*25 - 135*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C2 4:2 FTS	*80.6*		*40 - 200*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C2 6:2 FTS	*76.8*		*40 - 200*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C2 8:2 FTS	*80.2*		*40 - 300*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C3 HFPO-DA	*78.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
d7-N-MeFOSE-M	*73.0*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
d9-N-EtFOSE-M	*71.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
d5-NEtPFOSA	*83.7*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
d3-NMePFOSA	*74.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*
13C2 PFDoA	*68.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:28*	*1*

Client Sample ID: DC740014-MW-2
Lab Sample ID: 410-230467-2
Date Collected: 06/26/25 10:53
Matrix: Water
Date Received: 06/28/25 11:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.5**	**J**	3.2	0.88	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluoropentanoic acid (PFPeA)	**11**		1.6	0.48	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorohexanoic acid (PFHxA)	**10**		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluoroheptanoic acid (PFHpA)	**13**		1.6	0.64	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorooctanoic acid (PFOA)	**45**		1.6	0.72	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorononanoic acid (PFNA)	**5.1**		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-1

Client Sample ID: DC740014-MW-2
Date Collected: 06/26/25 10:53
Date Received: 06/28/25 11:10

Lab Sample ID: 410-230467-2
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorobutanesulfonic acid (PFBS)	**1.7**		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluoropentanesulfonic acid (PFPeS)	**1.2**	**J**	1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorohexanesulfonic acid (PFHxS)	**5.9**		1.6	0.64	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluoroheptanesulfonic acid (PFHpS)	**2.0**		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorooctanesulfonic acid (PFOS)	**24**	**I cn**	1.6	1.0	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.6	0.48	ng/L		07/14/25 06:25	07/15/25 05:42	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.80	ng/L		07/14/25 06:25	07/15/25 05:42	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.80	ng/L		07/14/25 06:25	07/15/25 05:42	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.80	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.0	2.0	ng/L		07/14/25 06:25	07/15/25 05:42	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.0	3.2	ng/L		07/14/25 06:25	07/15/25 05:42	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/14/25 06:25	07/15/25 05:42	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:42	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.80	ng/L		07/14/25 06:25	07/15/25 05:42	1

Client Sample ID: DC740014-MW-2
Lab Sample ID: 410-230467-2
Date Collected: 06/26/25 10:53
Matrix: Water
Date Received: 06/28/25 11:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.0	2.2	ng/L		07/14/25 06:25	07/15/25 05:42	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.0	2.0	ng/L		07/14/25 06:25	07/15/25 05:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.2*		*5 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C5 PFPeA	*98.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C5 PFHxA	*94.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C4 PFHpA	*78.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C8 PFOA	*91.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C9 PFNA	*100*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C6 PFDA	*88.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C7 PFUnA	*85.0*		*30 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C2 PFTeDA	*79.5*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C3 PFBS	*111*		*40 - 135*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C3 PFHxS	*99.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C8 PFOS	*107*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C8 FOSA	*99.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
d3-NMeFOSAA	*55.2*		*40 - 170*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
d5-NEtFOSAA	*51.5*		*25 - 135*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C2 4:2 FTS	*86.8*		*40 - 200*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C2 6:2 FTS	*85.3*		*40 - 200*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C2 8:2 FTS	*78.0*		*40 - 300*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C3 HFPO-DA	*88.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
d7-N-MeFOSE-M	*75.6*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
d9-N-EtFOSE-M	*73.4*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
d5-NEtPFOSA	*84.9*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
d3-NMePFOSA	*79.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*
13C2 PFDoA	*73.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:42*	*1*

Client Sample ID: DC740014-DUP
Lab Sample ID: 410-230467-3
Date Collected: 06/26/25 00:00
Matrix: Water
Date Received: 06/28/25 11:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.4**	**J**	3.3	0.90	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluoropentanoic acid (PFPeA)	**11**		1.6	0.49	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorohexanoic acid (PFHxA)	**10**		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluoroheptanoic acid (PFHpA)	**12**		1.6	0.65	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorooctanoic acid (PFOA)	**45**		1.6	0.73	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorononanoic acid (PFNA)	**5.3**		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorobutanesulfonic acid (PFBS)	**1.5**	**J**	1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluoropentanesulfonic acid (PFPeS)	**1.1**	**J**	1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-1

Client Sample ID: DC740014-DUP
Date Collected: 06/26/25 00:00
Date Received: 06/28/25 11:10

Lab Sample ID: 410-230467-3
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**6.2**		1.6	0.65	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluoroheptanesulfonic acid (PFHpS)	**1.8**		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorooctanesulfonic acid (PFOS)	**26**	**I cn**	1.6	1.1	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.6	0.49	ng/L		07/14/25 06:25	07/15/25 05:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	0.81	ng/L		07/14/25 06:25	07/15/25 05:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	0.81	ng/L		07/14/25 06:25	07/15/25 05:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	0.81	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.1	2.0	ng/L		07/14/25 06:25	07/15/25 05:55	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.1	3.3	ng/L		07/14/25 06:25	07/15/25 05:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/14/25 06:25	07/15/25 05:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 05:55	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	0.81	ng/L		07/14/25 06:25	07/15/25 05:55	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.1	2.3	ng/L		07/14/25 06:25	07/15/25 05:55	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.1	2.0	ng/L		07/14/25 06:25	07/15/25 05:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88.1*		*5 - 130*	*07/14/25 06:25*	*07/15/25 05:55*	*1*
13C5 PFPeA	*89.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:55*	*1*
13C5 PFHxA	*81.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:55*	*1*

Client Sample ID: DC740014-DUP
Lab Sample ID: 410-230467-3
Date Collected: 06/26/25 00:00
Matrix: Water
Date Received: 06/28/25 11:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	80.1		40 - 130	07/14/25 06:25	07/15/25 05:55	1
13C8 PFOA	82.9		40 - 130	07/14/25 06:25	07/15/25 05:55	1
13C9 PFNA	88.6		40 - 130	07/14/25 06:25	07/15/25 05:55	1
13C6 PFDA	81.5		40 - 130	07/14/25 06:25	07/15/25 05:55	1
13C7 PFUnA	75.9		30 - 130	07/14/25 06:25	07/15/25 05:55	1
13C2 PFTeDA	74.0		10 - 130	07/14/25 06:25	07/15/25 05:55	1
13C3 PFBS	98.5		40 - 135	07/14/25 06:25	07/15/25 05:55	1
13C3 PFHxS	87.6		40 - 130	07/14/25 06:25	07/15/25 05:55	1
13C8 PFOS	98.9		40 - 130	07/14/25 06:25	07/15/25 05:55	1
13C8 FOSA	94.1		40 - 130	07/14/25 06:25	07/15/25 05:55	1
d3-NMeFOSAA	47.6		40 - 170	07/14/25 06:25	07/15/25 05:55	1
d5-NEtFOSAA	47.9		25 - 135	07/14/25 06:25	07/15/25 05:55	1
13C2 4:2 FTS	75.7		40 - 200	07/14/25 06:25	07/15/25 05:55	1
13C2 6:2 FTS	73.1		40 - 200	07/14/25 06:25	07/15/25 05:55	1
13C2 8:2 FTS	66.3		40 - 300	07/14/25 06:25	07/15/25 05:55	1
13C3 HFPO-DA	75.8		40 - 130	07/14/25 06:25	07/15/25 05:55	1
d7-N-MeFOSE-M	72.5		10 - 130	07/14/25 06:25	07/15/25 05:55	1
d9-N-EtFOSE-M	73.9		10 - 130	07/14/25 06:25	07/15/25 05:55	1
d5-NEtPFOSA	83.1		10 - 130	07/14/25 06:25	07/15/25 05:55	1
d3-NMePFOSA	76.3		10 - 130	07/14/25 06:25	07/15/25 05:55	1
13C2 PFDoA	66.9		10 - 130	07/14/25 06:25	07/15/25 05:55	1

Client Sample ID: DC740014-FB
Lab Sample ID: 410-230467-4
Date Collected: 06/26/25 11:13
Matrix: Water
Date Received: 06/28/25 11:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0	0.83	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.45	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.60	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.68	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.60	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.98	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.5	0.45	ng/L		07/14/25 06:25	07/15/25 06:09	1

Client Sample ID: DC740014-FB
Date Collected: 06/26/25 11:13
Date Received: 06/28/25 11:10

Lab Sample ID: 410-230467-4
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.75	ng/L		07/14/25 06:25	07/15/25 06:09	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.75	ng/L		07/14/25 06:25	07/15/25 06:09	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.75	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.5	1.9	ng/L		07/14/25 06:25	07/15/25 06:09	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.5	3.0	ng/L		07/14/25 06:25	07/15/25 06:09	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/14/25 06:25	07/15/25 06:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.38	ng/L		07/14/25 06:25	07/15/25 06:09	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.75	ng/L		07/14/25 06:25	07/15/25 06:09	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.5	2.1	ng/L		07/14/25 06:25	07/15/25 06:09	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.5	1.9	ng/L		07/14/25 06:25	07/15/25 06:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.7*		*5 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C5 PFPeA	*85.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C5 PFHxA	*81.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C4 PFHpA	*78.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C8 PFOA	*90.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C9 PFNA	*101*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C6 PFDA	*86.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C7 PFUnA	*81.9*		*30 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C2 PFTeDA	*76.6*		*10 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C3 PFBS	*105*		*40 - 135*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C3 PFHxS	*96.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*
13C8 PFOS	*104*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:09*	*1*

Client Sample ID: DC740014-FB

Lab Sample ID: 410-230467-4

Date Collected: 06/26/25 11:13

Matrix: Water

Date Received: 06/28/25 11:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	95.7		40 - 130	07/14/25 06:25	07/15/25 06:09	1
d3-NMeFOSAA	62.7		40 - 170	07/14/25 06:25	07/15/25 06:09	1
d5-NEtFOSAA	64.9		25 - 135	07/14/25 06:25	07/15/25 06:09	1
13C2 4:2 FTS	86.6		40 - 200	07/14/25 06:25	07/15/25 06:09	1
13C2 6:2 FTS	84.5		40 - 200	07/14/25 06:25	07/15/25 06:09	1
13C2 8:2 FTS	80.5		40 - 300	07/14/25 06:25	07/15/25 06:09	1
13C3 HFPO-DA	75.4		40 - 130	07/14/25 06:25	07/15/25 06:09	1
d7-N-MeFOSE-M	78.0		10 - 130	07/14/25 06:25	07/15/25 06:09	1
d9-N-EtFOSE-M	74.0		10 - 130	07/14/25 06:25	07/15/25 06:09	1
d5-NEtPFOSA	86.3		10 - 130	07/14/25 06:25	07/15/25 06:09	1
d3-NMePFOSA	76.6		10 - 130	07/14/25 06:25	07/15/25 06:09	1
13C2 PFDoA	74.6		10 - 130	07/14/25 06:25	07/15/25 06:09	1

Client Sample ID: DC740014-EB

Lab Sample ID: 410-230467-5

Date Collected: 06/26/25 11:10

Matrix: Water

Date Received: 06/28/25 11:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.7	0.76	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluoropentanoic acid (PFPeA)	ND		1.4	0.41	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorohexanoic acid (PFHxA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluoroheptanoic acid (PFHpA)	ND		1.4	0.55	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorooctanoic acid (PFOA)	ND		1.4	0.62	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorononanoic acid (PFNA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorodecanoic acid (PFDA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluoroundecanoic acid (PFUnA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorododecanoic acid (PFDoA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.4	0.55	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1.4	0.89	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorononanesulfonic acid (PFNS)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.4	0.41	ng/L		07/14/25 06:25	07/15/25 06:50	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.7	0.69	ng/L		07/14/25 06:25	07/15/25 06:50	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.7	0.69	ng/L		07/14/25 06:25	07/15/25 06:50	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.7	0.69	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-1

Client Sample ID: DC740014-EB
Date Collected: 06/26/25 11:10
Date Received: 06/28/25 11:10

Lab Sample ID: 410-230467-5
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		6.9	1.7	ng/L		07/14/25 06:25	07/15/25 06:50	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		6.9	2.7	ng/L		07/14/25 06:25	07/15/25 06:50	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	0.96	ng/L		07/14/25 06:25	07/15/25 06:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.4	0.34	ng/L		07/14/25 06:25	07/15/25 06:50	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.7	0.69	ng/L		07/14/25 06:25	07/15/25 06:50	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		6.9	1.9	ng/L		07/14/25 06:25	07/15/25 06:50	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		6.9	1.7	ng/L		07/14/25 06:25	07/15/25 06:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*123*		*5 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C5 PFPeA	*120*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C5 PFHxA	*115*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C4 PFHpA	*110*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C8 PFOA	*123*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C9 PFNA	*124*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C6 PFDA	*106*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C7 PFUnA	*99.0*		*30 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C2 PFTeDA	*91.6*		*10 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C3 PFBS	*132*		*40 - 135*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C3 PFHxS	*125*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C8 PFOS	*141*	**5+*	*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C8 FOSA	*111*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
d3-NMeFOSAA	*86.8*		*40 - 170*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
d5-NEtFOSAA	*87.6*		*25 - 135*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C2 4:2 FTS	*118*		*40 - 200*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C2 6:2 FTS	*119*		*40 - 200*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C2 8:2 FTS	*115*		*40 - 300*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
13C3 HFPO-DA	*106*		*40 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
d7-N-MeFOSE-M	*90.7*		*10 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
d9-N-EtFOSE-M	*92.9*		*10 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*
d5-NEtPFOSA	*104*		*10 - 130*	*07/14/25 06:25*	*07/15/25 06:50*	*1*

Client: Hart & Hickman, PC
Job ID: 410-230467-1
Project/Site: Fabric Care Center (DC740014)

Client Sample ID: DC740014-EB
Lab Sample ID: 410-230467-5
Date Collected: 06/26/25 11:10
Matrix: Water
Date Received: 06/28/25 11:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMePFOSA	91.6		10 - 130	07/14/25 06:25	07/15/25 06:50	1
13C2 PFDoA	87.4		10 - 130	07/14/25 06:25	07/15/25 06:50	1

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-230467-1	DC740014-MW-4	83.4	82.5	82.1	80.4	79.0	91.5	79.6	81.6
410-230467-2	DC740014-MW-2	98.2	98.2	94.9	78.7	91.9	100	88.1	85.0
410-230467-3	DC740014-DUP	88.1	89.5	81.9	80.1	82.9	88.6	81.5	75.9
410-230467-4	DC740014-FB	90.7	85.0	81.4	78.7	90.1	101	86.0	81.9
410-230467-5	DC740014-EB	123	120	115	110	123	124	106	99.0
LCS 410-670654/3-A	Lab Control Sample	97.1	96.0	92.1	88.1	94.4	100	89.2	86.7
LCSD 410-670654/5-A	Lab Control Sample Dup	95.2	92.5	81.6	80.2	81.3	87.0	72.9	73.2
LLCS 410-670654/4-A	Lab Control Sample	94.9	98.7	94.3	87.1	84.0	92.6	80.0	82.6
MB 410-670654/2-A	Method Blank	100	98.1	90.7	88.8	91.3	95.4	92.0	89.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-230467-1	DC740014-MW-4	74.4	93.7	87.6	92.4	89.9	53.8	66.6	80.6
410-230467-2	DC740014-MW-2	79.5	111	99.1	107	99.2	55.2	51.5	86.8
410-230467-3	DC740014-DUP	74.0	98.5	87.6	98.9	94.1	47.6	47.9	75.7
410-230467-4	DC740014-FB	76.6	105	96.4	104	95.7	62.7	64.9	86.6
410-230467-5	DC740014-EB	91.6	132	125	141 *5+	111	86.8	87.6	118
LCS 410-670654/3-A	Lab Control Sample	66.6	101	97.9	104	98.2	87.2	96.7	97.3
LCSD 410-670654/5-A	Lab Control Sample Dup	71.1	88.0	82.1	85.8	96.3	79.6	77.4	92.1
LLCS 410-670654/4-A	Lab Control Sample	81.0	95.0	91.6	101	93.7	84.4	88.7	95.7
MB 410-670654/2-A	Method Blank	75.2	101	97.0	105	94.6	87.3	97.1	91.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-230467-1	DC740014-MW-4	76.8	80.2	78.1	73.0	71.2	83.7	74.2	68.3
410-230467-2	DC740014-MW-2	85.3	78.0	88.0	75.6	73.4	84.9	79.3	73.3
410-230467-3	DC740014-DUP	73.1	66.3	75.8	72.5	73.9	83.1	76.3	66.9
410-230467-4	DC740014-FB	84.5	80.5	75.4	78.0	74.0	86.3	76.6	74.6
410-230467-5	DC740014-EB	119	115	106	90.7	92.9	104	91.6	87.4
LCS 410-670654/3-A	Lab Control Sample	97.7	98.0	84.5	79.1	77.6	91.9	76.5	73.7
LCSD 410-670654/5-A	Lab Control Sample Dup	83.5	79.1	81.2	77.5	72.9	83.1	71.9	66.3
LLCS 410-670654/4-A	Lab Control Sample	87.9	93.9	86.9	66.6	62.1	87.8	72.9	75.3
MB 410-670654/2-A	Method Blank	90.1	91.6	87.4	65.3	61.1	91.3	77.4	79.3

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-1
Project/Site: Fabric Care Center (DC740014)

d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-670654/2-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670654

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/14/25 06:25	07/15/25 03:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/14/25 06:25	07/15/25 03:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-670654/2-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670654

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/14/25 06:25	07/15/25 03:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/14/25 06:25	07/15/25 03:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*5 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C5 PFPeA	*98.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C5 PFHxA	*90.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C4 PFHpA	*88.8*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C8 PFOA	*91.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C9 PFNA	*95.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C6 PFDA	*92.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C7 PFUnA	*89.5*		*30 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 PFTeDA	*75.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C3 PFBS	*101*		*40 - 135*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C3 PFHxS	*97.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C8 PFOS	*105*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C8 FOSA	*94.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d3-NMeFOSAA	*87.3*		*40 - 170*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d5-NEtFOSAA	*97.1*		*25 - 135*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 4:2 FTS	*91.6*		*40 - 200*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 6:2 FTS	*90.1*		*40 - 200*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 8:2 FTS	*91.6*		*40 - 300*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C3 HFPO-DA	*87.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d7-N-MeFOSE-M	*65.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d9-N-EtFOSE-M	*61.1*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d5-NEtPFOSA	*91.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d3-NMePFOSA	*77.4*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 PFDoA	*79.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*

Lab Sample ID: LCS 410-670654/3-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	69.5		ng/L		87	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	34.6		ng/L		86	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	35.9		ng/L		90	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	35.6		ng/L		89	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	33.0		ng/L		83	70 - 150
Perfluorononanoic acid (PFNA)	40.0	30.8		ng/L		77	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	36.0		ng/L		90	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-670654/3-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	35.0		ng/L		87	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	38.9		ng/L		97	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	34.0		ng/L		85	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	31.2		ng/L		78	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.5		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	35.2		ng/L		94	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.7		ng/L		92	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	27.6		ng/L		72	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	32.4		ng/L		87	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	27.5		ng/L		71	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	26.7		ng/L		69	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	21.1		ng/L		54	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	68.5		ng/L		91	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	66.6		ng/L		87	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	68.6		ng/L		89	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	33.4		ng/L		83	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	36.7		ng/L		92	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.5		ng/L		84	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	35.0		ng/L		87	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.7		ng/L		84	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	189		ng/L		95	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	186		ng/L		93	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.3		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.4		ng/L		93	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	31.4		ng/L		79	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	35.5		ng/L		89	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	41.6		ng/L		104	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-670654/3-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	28.3		ng/L		76	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	25.0		ng/L		66	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.1		ng/L		84	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	65.6		ng/L		82	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	171		ng/L		85	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	155		ng/L		77	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*97.1*		*5 - 130*
13C5 PFPeA	*96.0*		*40 - 130*
13C5 PFHxA	*92.1*		*40 - 130*
13C4 PFHpA	*88.1*		*40 - 130*
13C8 PFOA	*94.4*		*40 - 130*
13C9 PFNA	*100*		*40 - 130*
13C6 PFDA	*89.2*		*40 - 130*
13C7 PFUnA	*86.7*		*30 - 130*
13C2 PFTeDA	*66.6*		*10 - 130*
13C3 PFBS	*101*		*40 - 135*
13C3 PFHxS	*97.9*		*40 - 130*
13C8 PFOS	*104*		*40 - 130*
13C8 FOSA	*98.2*		*40 - 130*
d3-NMeFOSAA	*87.2*		*40 - 170*
d5-NEtFOSAA	*96.7*		*25 - 135*
13C2 4:2 FTS	*97.3*		*40 - 200*
13C2 6:2 FTS	*97.7*		*40 - 200*
13C2 8:2 FTS	*98.0*		*40 - 300*
13C3 HFPO-DA	*84.5*		*40 - 130*
d7-N-MeFOSE-M	*79.1*		*10 - 130*
d9-N-EtFOSE-M	*77.6*		*10 - 130*
d5-NEtPFOSA	*91.9*		*10 - 130*
d3-NMePFOSA	*76.5*		*10 - 130*
13C2 PFDoA	*73.7*		*10 - 130*

Lab Sample ID: LCSD 410-670654/5-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	71.1		ng/L		89	70 - 140	2	30
Perfluoropentanoic acid (PFPeA)			40.0	33.7		ng/L		84	65 - 135	2	30
Perfluorohexanoic acid (PFHxA)			40.0	39.5		ng/L		99	70 - 145	10	30
Perfluoroheptanoic acid (PFHpA)			40.0	36.4		ng/L		91	70 - 150	2	30
Perfluorooctanoic acid (PFOA)			40.0	31.0		ng/L		77	70 - 150	6	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-670654/5-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	29.6		ng/L		74	70 - 150	4	30
Perfluorodecanoic acid (PFDA)	40.0	35.2		ng/L		88	70 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.6		ng/L		94	70 - 145	7	30
Perfluorododecanoic acid (PFDoA)	40.0	40.8		ng/L		102	70 - 140	5	30
Perfluorotridecanoic acid (PFTrDA)	40.0	38.4		ng/L		96	65 - 140	12	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	34.2		ng/L		85	60 - 140	9	30
Perfluorobutanesulfonic acid (PFBS)	35.5	31.6		ng/L		89	60 - 145	4	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	33.0		ng/L		88	65 - 140	7	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.2		ng/L		91	65 - 145	1	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	26.7		ng/L		70	70 - 150	3	30
Perfluorooctanesulfonic acid (PFOS)	37.2	29.2		ng/L		78	55 - 150	11	30
Perfluorononanesulfonic acid (PFNS)	38.5	30.2		ng/L		78	65 - 145	9	30
Perfluorodecanesulfonic acid (PFDS)	38.6	32.5		ng/L		84	60 - 145	20	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	29.8	*1	ng/L		77	50 - 145	34	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	68.1		ng/L		91	70 - 145	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	74.2		ng/L		97	65 - 155	11	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	76.9		ng/L		100	60 - 150	11	30
Perfluorooctanesulfonamide (PFOSA)	40.0	33.9		ng/L		85	70 - 145	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	37.7		ng/L		94	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.5		ng/L		84	65 - 145	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.1		ng/L		93	50 - 140	6	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.7		ng/L		92	70 - 145	8	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	198		ng/L		99	70 - 145	4	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	185		ng/L		93	70 - 135	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.9		ng/L		90	70 - 140	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	33.1		ng/L		88	65 - 145	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	32.7		ng/L		82	55 - 140	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	35.8		ng/L		89	60 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-670654/5-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	44.4		ng/L		111	50 - 150	6	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.0		ng/L		80	70 - 155	6	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	30.4		ng/L		80	55 - 160	19	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	29.5		ng/L		83	70 - 140	2	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	69.0		ng/L		86	65 - 130	5	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	193		ng/L		96	70 - 135	12	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	170		ng/L		85	50 - 145	10	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*95.2*		*5 - 130*
13C5 PFPeA	*92.5*		*40 - 130*
13C5 PFHxA	*81.6*		*40 - 130*
13C4 PFHpA	*80.2*		*40 - 130*
13C8 PFOA	*81.3*		*40 - 130*
13C9 PFNA	*87.0*		*40 - 130*
13C6 PFDA	*72.9*		*40 - 130*
13C7 PFUnA	*73.2*		*30 - 130*
13C2 PFTeDA	*71.1*		*10 - 130*
13C3 PFBS	*88.0*		*40 - 135*
13C3 PFHxS	*82.1*		*40 - 130*
13C8 PFOS	*85.8*		*40 - 130*
13C8 FOSA	*96.3*		*40 - 130*
d3-NMeFOSAA	*79.6*		*40 - 170*
d5-NEtFOSAA	*77.4*		*25 - 135*
13C2 4:2 FTS	*92.1*		*40 - 200*
13C2 6:2 FTS	*83.5*		*40 - 200*
13C2 8:2 FTS	*79.1*		*40 - 300*
13C3 HFPO-DA	*81.2*		*40 - 130*
d7-N-MeFOSE-M	*77.5*		*10 - 130*
d9-N-EtFOSE-M	*72.9*		*10 - 130*
d5-NEtPFOSA	*83.1*		*10 - 130*
d3-NMePFOSA	*71.9*		*10 - 130*
13C2 PFDoA	*66.3*		*10 - 130*

Lab Sample ID: LLCS 410-670654/4-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.17		ng/L		90	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	3.71		ng/L		93	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.65		ng/L		91	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-670654/4-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.88		ng/L		97	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.62		ng/L		91	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.67		ng/L		92	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.97		ng/L		99	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.90		ng/L		98	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.33		ng/L		108	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.85		ng/L		96	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.42		ng/L		85	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.45		ng/L		97	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	4.08		ng/L		108	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.10		ng/L		85	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.05		ng/L		80	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.48		ng/L		94	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.43		ng/L		89	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.15		ng/L		82	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.96		ng/L		76	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.47		ng/L		100	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	8.02		ng/L		105	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.01		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.12		ng/L		103	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.40		ng/L		110	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.04		ng/L		101	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.12		ng/L		103	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	4.02		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.5		ng/L		108	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	23.2		ng/L		116	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.71		ng/L		90	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.54		ng/L		93	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.46		ng/L		86	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-670654/4-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.35		ng/L		84	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.89		ng/L		97	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	3.03		ng/L		81	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.99		ng/L		79	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	2.97		ng/L		83	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.36		ng/L		79	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	18.8		ng/L		94	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	15.7		ng/L		79	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*94.9*		*5 - 130*
13C5 PFPeA	*98.7*		*40 - 130*
13C5 PFHxA	*94.3*		*40 - 130*
13C4 PFHpA	*87.1*		*40 - 130*
13C8 PFOA	*84.0*		*40 - 130*
13C9 PFNA	*92.6*		*40 - 130*
13C6 PFDA	*80.0*		*40 - 130*
13C7 PFUnA	*82.6*		*30 - 130*
13C2 PFTeDA	*81.0*		*10 - 130*
13C3 PFBS	*95.0*		*40 - 135*
13C3 PFHxS	*91.6*		*40 - 130*
13C8 PFOS	*101*		*40 - 130*
13C8 FOSA	*93.7*		*40 - 130*
d3-NMeFOSAA	*84.4*		*40 - 170*
d5-NEtFOSAA	*88.7*		*25 - 135*
13C2 4:2 FTS	*95.7*		*40 - 200*
13C2 6:2 FTS	*87.9*		*40 - 200*
13C2 8:2 FTS	*93.9*		*40 - 300*
13C3 HFPO-DA	*86.9*		*40 - 130*
d7-N-MeFOSE-M	*66.6*		*10 - 130*
d9-N-EtFOSE-M	*62.1*		*10 - 130*
d5-NEtPFOSA	*87.8*		*10 - 130*
d3-NMePFOSA	*72.9*		*10 - 130*
13C2 PFDoA	*75.3*		*10 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-1

LCMS

Analysis Batch: 670538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230467-1	DC740014-MW-4	Total/NA	Water	1633A	670654
410-230467-2	DC740014-MW-2	Total/NA	Water	1633A	670654
410-230467-3	DC740014-DUP	Total/NA	Water	1633A	670654
410-230467-4	DC740014-FB	Total/NA	Water	1633A	670654
410-230467-5	DC740014-EB	Total/NA	Water	1633A	670654
MB 410-670654/2-A	Method Blank	Total/NA	Water	1633A	670654
LCS 410-670654/3-A	Lab Control Sample	Total/NA	Water	1633A	670654
LCSD 410-670654/5-A	Lab Control Sample Dup	Total/NA	Water	1633A	670654
LLCS 410-670654/4-A	Lab Control Sample	Total/NA	Water	1633A	670654

Prep Batch: 670654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230467-1	DC740014-MW-4	Total/NA	Water	1633A	
410-230467-2	DC740014-MW-2	Total/NA	Water	1633A	
410-230467-3	DC740014-DUP	Total/NA	Water	1633A	
410-230467-4	DC740014-FB	Total/NA	Water	1633A	
410-230467-5	DC740014-EB	Total/NA	Water	1633A	
MB 410-670654/2-A	Method Blank	Total/NA	Water	1633A	
LCS 410-670654/3-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-670654/5-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-670654/4-A	Lab Control Sample	Total/NA	Water	1633A	

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-230467-1
Project/Site: Fabric Care Center (DC740014)

Client Sample ID: DC740014-MW-4
Lab Sample ID: 410-230467-1
Date Collected: 06/26/25 09:47
Matrix: Water
Date Received: 06/28/25 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 05:28

Client Sample ID: DC740014-MW-2
Lab Sample ID: 410-230467-2
Date Collected: 06/26/25 10:53
Matrix: Water
Date Received: 06/28/25 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 05:42

Client Sample ID: DC740014-DUP
Lab Sample ID: 410-230467-3
Date Collected: 06/26/25 00:00
Matrix: Water
Date Received: 06/28/25 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 05:55

Client Sample ID: DC740014-FB
Lab Sample ID: 410-230467-4
Date Collected: 06/26/25 11:13
Matrix: Water
Date Received: 06/28/25 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 06:09

Client Sample ID: DC740014-EB
Lab Sample ID: 410-230467-5
Date Collected: 06/26/25 11:10
Matrix: Water
Date Received: 06/28/25 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 06:50

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-1
Project/Site: Fabric Care Center (DC740014)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Client: Hart & Hickman, PC
Job ID: 410-230467-1
Project/Site: Fabric Care Center (DC740014)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-1

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-1
Project/Site: Fabric Care Center (DC740014)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-230467-1	DC740014-MW-4	Water	06/26/25 09:47	06/28/25 11:10
410-230467-2	DC740014-MW-2	Water	06/26/25 10:53	06/28/25 11:10
410-230467-3	DC740014-DUP	Water	06/26/25 00:00	06/28/25 11:10
410-230467-4	DC740014-FB	Water	06/26/25 11:13	06/28/25 11:10
410-230467-5	DC740014-EB	Water	06/26/25 11:10	06/28/25 11:10

ironme

Chain of Custody Record

eurofins | Environment Testing

410-230467 Chain of Custody

Mandy Klaben	Sampler: Rachel Schmidt + Nick Stone	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159678-44153.1
Company: Hart & Hickman, PC	Phone: 919-847-4241	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Address: 3921 Sunset Ridge Rd Suite 301	PWSID:	Due Date Requested:	Analysis Requested	Job #: DSO.PFAS
City: Raleigh		TAT Requested (days): H+H Standard (10 days)		Preservation Codes: N - None
State, Zip: NC, 27607		Compliance Project: Δ Yes Δ No		
Phone: 704-887-4608(Tel)		PO #: DSO.PFAS		
Email: mklaben@harthickman.com		WO #:		
Project Name: Fabric Care Center (DC740014)		Project #: 41025876		
Site:		SSOW#:		Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS	1633 Final	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N		X	
DC740014-MW-4	6/26/25	0947	G	Water	N	N	X	X	3	*Hold TOPS analysis
DC740014-MW-2	6/26/25	1053	G	Water	N	N	X	X	3	until further notice
DC740014-DUP	6/26/25		G	Water	N	N		X	2	*Please report J flags
				Water						+ report non-detects
DC740014-FB	6/26/25	1113	G	Water	N	N		X	2	as < MDL
DC740014-EB	6/26/25	1110	G	Water	N	N		X	2	*EDD formats: H+H,
										DSCA, NCDEQ

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by: Rachel Schmidt	Date/Time: 6/26/25 1430	Company: H+H	Received by:	Date/Time: 06/27/25 1345	Company		
Relinquished by:	Date/Time: 06/27/25 1700	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/28/25 11:10	Company		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: R 4.0 C4.0

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-230467-1

Login Number: 230467
List Number: 1
Creator: Leakway, Christian

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 9/4/2025 1:13:37 PM

JOB DESCRIPTION

Fabric Care Center (DC740014)

JOB NUMBER

410-230467-2

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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9/4/2025 1:13:37 PM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

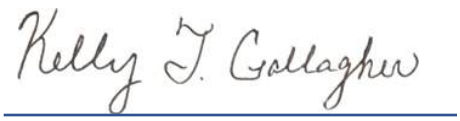


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Qualifiers

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-230467-2 Eurofins Lancaster Laboratories Environment

Job Narrative
410-230467-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 6/28/2025 11:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

PFAS
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Client Sample ID: DC740014-MW-4
Lab Sample ID: 410-230467-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	11		10	3.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanoic acid (PFHxA)	12		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	9.2	J	10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	15		10	4.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanesulfonic acid (PFHxS)	42		10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	93		10	6.5	ng/L	1		1633 TOPS	Post-Treatment

Client Sample ID: DC740014-MW-2
Lab Sample ID: 410-230467-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	13		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	16		10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	47		10	4.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanesulfonic acid (PFHxS)	7.3	J	10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	33	I	10	6.5	ng/L	1		1633 TOPS	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-2

Client Sample ID: DC740014-MW-4
Date Collected: 06/26/25 09:47
Date Received: 06/28/25 11:10

Lab Sample ID: 410-230467-1
Matrix: Water

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluoropentanoic acid (PFPeA)	**11**		10	3.0	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorohexanoic acid (PFHxA)	**12**		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluoroheptanoic acid (PFHpA)	**9.2**	**J**	10	4.0	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorooctanoic acid (PFOA)	**15**		10	4.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorohexanesulfonic acid (PFHxS)	**42**		10	4.0	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorooctanesulfonic acid (PFOS)	**93**		10	6.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 12:29	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:29	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:29	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 12:29	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		08/28/25 11:44	09/02/25 12:29	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		08/28/25 11:44	09/02/25 12:29	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1

Client Sample ID: DC740014-MW-4

Lab Sample ID: 410-230467-1

Date Collected: 06/26/25 09:47

Matrix: Water

Date Received: 06/28/25 11:10

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:29	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		08/28/25 11:44	09/02/25 12:29	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*85.7*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C5 PFPeA	*88.3*		*35 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C5 PFHxA	*89.5*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C4 PFHpA	*79.9*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C9 PFNA	*79.6*		*55 - 140*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C6 PFDA	*80.1*		*50 - 140*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C7 PFUnA	*75.7*		*30 - 140*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C2 PFTeDA	*63.8*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C3 PFBS	*84.7*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C3 PFHxS	*79.9*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C8 PFOS	*82.4*		*45 - 140*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
d3-NMeFOSAA	*87.6*		*45 - 200*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
d5-NEtFOSAA	*84.8*		*10 - 200*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C2 PFDoA	*72.4*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C2 4:2 FTS	*98.1*		*60 - 200*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C2 6:2 FTS	*112*		*60 - 200*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C2 8:2 FTS	*112*		*50 - 200*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C3 HFPO-DA	*75.9*		*25 - 160*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
d7-N-MeFOSE-M	*58.3*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
d9-N-EtFOSE-M	*48.0*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
d5-NEtPFOSA	*70.8*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
d3-NMePFOSA	*72.6*		*15 - 130*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C8 FOSA	*0.623*		*0 - 10*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
13C2 PFOA	*102*		*40 - 130*	*08/28/25 11:44*	*09/02/25 12:29*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA	*103*		*50 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*
M3PFPeA	*85*		*50 - 150*	*08/28/25 11:44*	*09/02/25 12:29*	*1*

Client Sample ID: DC740014-MW-2

Lab Sample ID: 410-230467-2

Date Collected: 06/26/25 10:53

Matrix: Water

Date Received: 06/28/25 11:10

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluoropentanoic acid (PFPeA)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorohexanoic acid (PFHxA)	**13**		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluoroheptanoic acid (PFHpA)	**16**		10	4.0	ng/L		08/28/25 11:44	09/02/25 12:43	1

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Client Sample ID: DC740014-MW-2
Lab Sample ID: 410-230467-2
Date Collected: 06/26/25 10:53
Matrix: Water
Date Received: 06/28/25 11:10

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**47**		10	4.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorohexanesulfonic acid (PFHxS)	**7.3**	**J**	10	4.0	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorooctanesulfonic acid (PFOS)	**33**	**I**	10	6.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 12:43	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:43	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:43	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	12	ng/L		08/28/25 11:44	09/02/25 12:43	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		08/28/25 11:44	09/02/25 12:43	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		08/28/25 11:44	09/02/25 12:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 12:43	1

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Client Sample ID: DC740014-MW-2
Lab Sample ID: 410-230467-2
Date Collected: 06/26/25 10:53
Matrix: Water
Date Received: 06/28/25 11:10

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		08/28/25 11:44	09/02/25 12:43	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	12	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 12:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86.7*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C5 PFPeA	*91.4*		*35 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C5 PFHxA	*89.8*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C4 PFHpA	*84.7*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C9 PFNA	*75.8*		*55 - 140*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C6 PFDA	*82.7*		*50 - 140*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C7 PFUnA	*76.5*		*30 - 140*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C2 PFTeDA	*67.6*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C3 PFBS	*84.0*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C3 PFHxS	*81.4*		*55 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C8 PFOS	*82.4*		*45 - 140*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
d3-NMeFOSAA	*85.1*		*45 - 200*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
d5-NEtFOSAA	*83.8*		*10 - 200*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C2 PFDoA	*75.4*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C2 4:2 FTS	*96.2*		*60 - 200*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C2 6:2 FTS	*120*		*60 - 200*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C2 8:2 FTS	*114*		*50 - 200*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C3 HFPO-DA	*75.3*		*25 - 160*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
d7-N-MeFOSE-M	*56.1*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
d9-N-EtFOSE-M	*44.8*		*10 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
d5-NEtPFOSA	*75.1*		*10 - 130*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
d3-NMePFOSA	*73.2*		*15 - 130*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C8 FOSA	*1.58*		*0 - 10*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
13C2 PFOA	*104*		*40 - 130*	*08/28/25 11:44*	*09/02/25 12:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA	*100*		*50 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*
M3PFPeA	*88*		*50 - 150*	*08/28/25 11:44*	*09/02/25 12:43*	*1*

Surrogate Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)									
		PFUnA	M3PFPeA								
Lab Sample ID	Client Sample ID	(50-150)	(50-150)								
410-230467-1	DC740014-MW-4	103	85								
410-230467-2	DC740014-MW-2	100	88								

Surrogate Legend

PFUnA = 13C2 PFUnA

M3PFPeA = M3PFPeA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)									
		PFUnA	M3PFPeA								
Lab Sample ID	Client Sample ID										
MB 410-691924/1-A	Method Blank										
MB 410-691924/2-A	Method Blank										

Surrogate Legend

PFUnA = 13C2 PFUnA

M3PFPeA = M3PFPeA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: Fabric Care Center (DC740014)

Job ID: 410-230467-2

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(55-140)	(50-140)	(30-140)	(10-130)
410-230467-1	DC740014-MW-4	85.7	88.3	89.5	79.9	79.6	80.1	75.7	63.8
410-230467-2	DC740014-MW-2	86.7	91.4	89.8	84.7	75.8	82.7	76.5	67.6
MB 410-691924/1-A	Method Blank	83.5	84.7	91.2	79.4	75.9	76.0	73.5	69.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFDoA	M242FTS	M262FTS
Lab Sample ID	Client Sample ID	(55-150)	(55-150)	(45-140)	(45-200)	(10-200)	(10-150)	(60-200)	(60-200)
410-230467-1	DC740014-MW-4	84.7	79.9	82.4	87.6	84.8	72.4	98.1	112
410-230467-2	DC740014-MW-2	84.0	81.4	82.4	85.1	83.8	75.4	96.2	120
MB 410-691924/1-A	Method Blank	77.1	78.3	80.6	87.5	87.5	71.5	98.7	123

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFOSA	13PFOA
Lab Sample ID	Client Sample ID	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)	(0-10)	(40-130)
410-230467-1	DC740014-MW-4	112	75.9	58.3	48.0	70.8	72.6	0.623	102
410-230467-2	DC740014-MW-2	114	75.3	56.1	44.8	75.1	73.2	1.58	104
MB 410-691924/1-A	Method Blank	105	73.5	65.7	61.1	71.8	69.8	1.20	97.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFOSA = 13C8 FOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(20-140)	(20-140)	(10-130)
LCS 410-691924/3-A	Lab Control Sample	87.8	83.0	86.2	81.1	74.9	79.2	79.1	60.9
LLCS 410-691924/5-A	Lab Control Sample	86.1	84.3	89.6	80.4	74.5	79.9	80.2	64.2

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFDoA	M242FTS	M262FTS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(20-140)	(10-200)	(10-200)	(10-150)	(25-200)	(25-200)
LCS 410-691924/3-A	Lab Control Sample	79.8	76.4	77.7	89.3	89.8	74.0	97.0	97.2
LLCS 410-691924/5-A	Lab Control Sample	85.1	78.9	82.7	94.1	92.0	71.1	99.1	106

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	13PFOA
Lab Sample ID	Client Sample ID	(25-200)	(25-160)	(10-150)	(10-150)	(10-130)	(10-130)	(40-130)
LCS 410-691924/3-A	Lab Control Sample	98.8	75.9	57.5	53.7	66.9	66.9	101
LLCS 410-691924/5-A	Lab Control Sample	97.3	74.7	65.5	54.8	67.8	65.5	96.3

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID								
LCSD 410-691924/4-A	Lab Control Sample Dup								

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFDoA	M242FTS	M262FTS
Lab Sample ID	Client Sample ID								
LCSD 410-691924/4-A	Lab Control Sample Dup								

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	13PFOA
Lab Sample ID	Client Sample ID							
LCSD 410-691924/4-A	Lab Control Sample Dup							

Surrogate Legend

PFBA = 13C4 PFBA

PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(55-140)	(50-140)	(30-140)	(10-130)
MB 410-691924/2-A	Method Blank	84.5	84.3	83.2	78.0	73.4	72.9	72.1	59.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFDoA	M242FTS	M262FTS
Lab Sample ID	Client Sample ID	(55-150)	(55-150)	(45-140)	(45-200)	(10-200)	(10-150)	(60-200)	(60-200)
MB 410-691924/2-A	Method Blank	79.2	78.0	74.9	91.3	92.9	70.8	96.5	103

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFOSA	13PFOA
Lab Sample ID	Client Sample ID	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)		(40-130)
MB 410-691924/2-A	Method Blank	102	72.6	58.7	47.4	69.3	67.9		95.2

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFOSA = 13C8 FOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-691924/1-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoropentanoic acid (PFPeA)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorohexanoic acid (PFHxA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoroheptanoic acid (PFHpA)	ND		10	4.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorooctanoic acid (PFOA)	ND		10	4.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10	4.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorooctanesulfonic acid (PFOS)	ND		10	6.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 10:54	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		08/28/25 11:44	09/02/25 10:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-691924/1-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 10:54	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		08/28/25 11:44	09/02/25 10:54	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 10:54	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*83.5*		*10 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C5 PFPeA	*84.7*		*35 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C5 PFHxA	*91.2*		*55 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C4 PFHpA	*79.4*		*55 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C9 PFNA	*75.9*		*55 - 140*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C6 PFDA	*76.0*		*50 - 140*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C7 PFUnA	*73.5*		*30 - 140*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 PFTeDA	*69.6*		*10 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C3 PFBS	*77.1*		*55 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C3 PFHxS	*78.3*		*55 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C8 PFOS	*80.6*		*45 - 140*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d3-NMeFOSAA	*87.5*		*45 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d5-NEtFOSAA	*87.5*		*10 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 PFDoA	*71.5*		*10 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 4:2 FTS	*98.7*		*60 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 6:2 FTS	*123*		*60 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 8:2 FTS	*105*		*50 - 200*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C3 HFPO-DA	*73.5*		*25 - 160*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d7-N-MeFOSE-M	*65.7*		*10 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d9-N-EtFOSE-M	*61.1*		*10 - 150*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d5-NEtPFOSA	*71.8*		*10 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
d3-NMePFOSA	*69.8*		*15 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C8 FOSA	*1.20*		*0 - 10*	*08/28/25 11:44*	*09/02/25 10:54*	*1*
13C2 PFOA	*97.1*		*40 - 130*	*08/28/25 11:44*	*09/02/25 10:54*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA				*08/28/25 11:44*	*09/02/25 10:54*	*1*
M3PFPeA				*08/28/25 11:44*	*09/02/25 10:54*	*1*

Lab Sample ID: MB 410-691924/2-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoropentanoic acid (PFPeA)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorohexanoic acid (PFHxA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-691924/2-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	ND		10	4.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorooctanoic acid (PFOA)	ND		10	4.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10	4.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorooctanesulfonic acid (PFOS)	ND		10	6.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 11:08	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		08/28/25 11:44	09/02/25 11:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		08/28/25 11:44	09/02/25 11:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		08/28/25 11:44	09/02/25 11:08	1

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-691924/2-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		08/28/25 11:44	09/02/25 11:08	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		08/28/25 11:44	09/02/25 11:08	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*84.5*		*10 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C5 PFPeA	*84.3*		*35 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C5 PFHxA	*83.2*		*55 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C4 PFHpA	*78.0*		*55 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C9 PFNA	*73.4*		*55 - 140*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C6 PFDA	*72.9*		*50 - 140*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C7 PFUnA	*72.1*		*30 - 140*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 PFTeDA	*59.2*		*10 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C3 PFBS	*79.2*		*55 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C3 PFHxS	*78.0*		*55 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C8 PFOS	*74.9*		*45 - 140*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d3-NMeFOSAA	*91.3*		*45 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d5-NEtFOSAA	*92.9*		*10 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 PFDoA	*70.8*		*10 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 4:2 FTS	*96.5*		*60 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 6:2 FTS	*103*		*60 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 8:2 FTS	*102*		*50 - 200*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C3 HFPO-DA	*72.6*		*25 - 160*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d7-N-MeFOSE-M	*58.7*		*10 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d9-N-EtFOSE-M	*47.4*		*10 - 150*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d5-NEtPFOSA	*69.3*		*10 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
d3-NMePFOSA	*67.9*		*15 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C8 FOSA				*08/28/25 11:44*	*09/02/25 11:08*	*1*
13C2 PFOA	*95.2*		*40 - 130*	*08/28/25 11:44*	*09/02/25 11:08*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA				*08/28/25 11:44*	*09/02/25 11:08*	*1*
M3PFPeA				*08/28/25 11:44*	*09/02/25 11:08*	*1*

Lab Sample ID: LCS 410-691924/3-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	400	362		ng/L		91	58 - 148
Perfluoropentanoic acid (PFPeA)	200	190		ng/L		95	54 - 152
Perfluorohexanoic acid (PFHxA)	200	192		ng/L		96	55 - 152
Perfluoroheptanoic acid (PFHpA)	200	211		ng/L		106	54 - 154
Perfluorooctanoic acid (PFOA)	200	154		ng/L		77	52 - 161
Perfluorononanoic acid (PFNA)	200	212		ng/L		106	59 - 149

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-691924/3-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorodecanoic acid (PFDA)	200	195		ng/L		97	52 - 147
Perfluoroundecanoic acid (PFUnA)	200	199		ng/L		99	48 - 159
Perfluorododecanoic acid (PFDoA)	200	203		ng/L		101	64 - 142
Perfluorotridecanoic acid (PFTrDA)	200	207		ng/L		104	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	200	199		ng/L		99	47 - 161
Perfluorobutanesulfonic acid (PFBS)	178	166		ng/L		93	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	188	198		ng/L		105	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	182	170		ng/L		93	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	191	211		ng/L		111	55 - 152
Perfluorooctanesulfonic acid (PFOS)	186	190		ng/L		102	58 - 149
Perfluorononanesulfonic acid (PFNS)	192	195		ng/L		102	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	194	167		ng/L		86	36 - 145
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	375	373		ng/L		100	67 - 146
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	381	396		ng/L		104	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	384	360		ng/L		94	63 - 152
Perfluorooctanesulfonamide (PFOSA)	200	146		ng/L		73	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	200	191		ng/L		95	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	200	193		ng/L		96	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	200	210		ng/L		105	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	200	200		ng/L		100	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	1000	1150		ng/L		115	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	1000	1050		ng/L		105	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	150	175		ng/L		117	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	189	200		ng/L		106	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	200	209		ng/L		104	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	200	194		ng/L		97	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	187	187		ng/L		100	56 - 156

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-691924/3-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	180		ng/L		95	46 - 156		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	169		ng/L		94	56 - 151		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	362		ng/L		91	62 - 129		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	875		ng/L		87	63 - 134		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	809		ng/L		81	50 - 138		
Perfluorodecanesulfonic acid (PFDS)			193	180		ng/L		93	51 - 147		
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	194		ng/L		97	51 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*87.8*		*10 - 130*
13C5 PFPeA	*83.0*		*40 - 150*
13C5 PFHxA	*86.2*		*40 - 150*
13C4 PFHpA	*81.1*		*40 - 150*
13C9 PFNA	*74.9*		*30 - 140*
13C6 PFDA	*79.2*		*20 - 140*
13C7 PFUnA	*79.1*		*20 - 140*
13C2 PFTeDA	*60.9*		*10 - 130*
13C3 PFBS	*79.8*		*25 - 150*
13C3 PFHxS	*76.4*		*25 - 150*
13C8 PFOS	*77.7*		*20 - 140*
d3-NMeFOSAA	*89.3*		*10 - 200*
d5-NEtFOSAA	*89.8*		*10 - 200*
13C2 PFDoA	*74.0*		*10 - 150*
13C2 4:2 FTS	*97.0*		*25 - 200*
13C2 6:2 FTS	*97.2*		*25 - 200*
13C2 8:2 FTS	*98.8*		*25 - 200*
13C3 HFPO-DA	*75.9*		*25 - 160*
d7-N-MeFOSE-M	*57.5*		*10 - 150*
d9-N-EtFOSE-M	*53.7*		*10 - 150*
d5-NEtPFOSA	*66.9*		*10 - 130*
d3-NMePFOSA	*66.9*		*10 - 130*
13C2 PFOA	*101*		*40 - 130*

Lab Sample ID: LCSD 410-691924/4-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			400	372		ng/L					
Perfluoropentanoic acid (PFPeA)			200	192		ng/L					
Perfluorohexanoic acid (PFHxA)			200	181		ng/L					
Perfluoroheptanoic acid (PFHpA)			200	214		ng/L					
Perfluorooctanoic acid (PFOA)			200	160		ng/L					

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-691924/4-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)			200	218		ng/L					
Perfluorodecanoic acid (PFDA)			200	189		ng/L					
Perfluoroundecanoic acid (PFUnA)			200	210		ng/L					
Perfluorododecanoic acid (PFDoA)			200	215		ng/L					
Perfluorotridecanoic acid (PFTrDA)			200	220		ng/L					
Perfluorotetradecanoic acid (PFTeDA)			200	223		ng/L					
Perfluorobutanesulfonic acid (PFBS)			178	172		ng/L					
Perfluoropentanesulfonic acid (PFPeS)			188	197		ng/L					
Perfluorohexanesulfonic acid (PFHxS)			182	178		ng/L					
Perfluoroheptanesulfonic acid (PFHpS)			191	212		ng/L					
Perfluorooctanesulfonic acid (PFOS)			186	191		ng/L					
Perfluorononanesulfonic acid (PFNS)			192	202		ng/L					
Perfluorododecanesulfonic acid (PFDoS)			194	194		ng/L					
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)			375	383		ng/L					
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)			381	398		ng/L					
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			384	360		ng/L					
Perfluorooctanesulfonamide (PFOSA)			200	150		ng/L					
N-methylperfluorooctane sulfonamide (NMeFOSA)			200	199		ng/L					
N-ethylperfluorooctane sulfonamide (NEtFOSA)			200	188		ng/L					
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			200	206		ng/L					
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			200	187		ng/L					
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			1000	1070		ng/L					
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			1000	1080		ng/L					
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			150	182		ng/L					
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			189	215		ng/L					
Perfluoro-4-methoxybutanoic acid (PFMBA)			200	209		ng/L					
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			200	182		ng/L					
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			187	199		ng/L					

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-691924/4-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	208		ng/L					
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	161		ng/L					
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	382		ng/L					
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	829		ng/L					
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	757		ng/L					
Perfluorodecanesulfonic acid (PFDS)			193	192		ng/L					
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	193		ng/L					

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA			
13C5 PFPeA			
13C5 PFHxA			
13C4 PFHpA			
13C9 PFNA			
13C6 PFDA			
13C7 PFUnA			
13C2 PFTeDA			
13C3 PFBS			
13C3 PFHxS			
13C8 PFOS			
d3-NMeFOSAA			
d5-NEtFOSAA			
13C2 PFDoA			
13C2 4:2 FTS			
13C2 6:2 FTS			
13C2 8:2 FTS			
13C3 HFPO-DA			
d7-N-MeFOSE-M			
d9-N-EtFOSE-M			
d5-NEtPFOSA			
d3-NMePFOSA			
13C2 PFOA			

Lab Sample ID: LLCS 410-691924/5-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)			40.0	37.8		ng/L		94	44 - 157		
Perfluoropentanoic acid (PFPeA)			20.0	20.0		ng/L		100	57 - 148		
Perfluorohexanoic acid (PFHxA)			20.0	19.9		ng/L		99	62 - 149		
Perfluoroheptanoic acid (PFHpA)			20.0	20.6		ng/L		103	56 - 150		
Perfluorooctanoic acid (PFOA)			20.0	17.7		ng/L		88	57 - 161		

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-691924/5-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	20.0	22.7		ng/L		113	53 - 157
Perfluorodecanoic acid (PFDA)	20.0	19.4		ng/L		97	43 - 158
Perfluoroundecanoic acid (PFUnA)	20.0	20.9		ng/L		105	50 - 155
Perfluorododecanoic acid (PFDoA)	20.0	21.4		ng/L		107	60 - 141
Perfluorotridecanoic acid (PFTrDA)	20.0	20.8		ng/L		104	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	20.0	22.6		ng/L		113	52 - 156
Perfluorobutanesulfonic acid (PFBS)	17.8	16.8		ng/L		95	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	18.8	19.8		ng/L		105	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	18.2	19.5		ng/L		107	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	19.1	21.0		ng/L		110	51 - 150
Perfluorooctanesulfonic acid (PFOS)	18.6	17.2		ng/L		92	43 - 162
Perfluorononanesulfonic acid (PFNS)	19.2	19.9		ng/L		103	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	19.4	18.5		ng/L		96	30 - 138
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	37.5	39.5		ng/L		105	52 - 158
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	38.1	39.1		ng/L		103	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	38.4	41.4		ng/L		108	46 - 165
Perfluorooctanesulfonamide (PFOSA)	20.0	15.9		ng/L		80	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	20.0	20.6		ng/L		103	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	20.0	16.6		ng/L		83	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20.0	21.5		ng/L		108	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20.0	17.9		ng/L		90	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	100	102		ng/L		102	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	100	99.5		ng/L		99	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	15.0	17.8		ng/L		119	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	18.9	22.3		ng/L		118	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	20.0	21.4		ng/L		107	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	20.0	20.9		ng/L		104	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	18.7	19.7		ng/L		105	44 - 167

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-691924/5-A
Matrix: Water
Analysis Batch: 693362

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 691924

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			18.9	19.1		ng/L		101	36 - 158		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			17.8	15.5		ng/L		87	56 - 144		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			40.0	37.0		ng/L		93	32 - 161		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			100	86.8		ng/L		87	39 - 156		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			100	77.0		ng/L		77	36 - 149		
Perfluorodecanesulfonic acid (PFDS)			19.3	18.6		ng/L		97	50 - 144		
Perfluoro-3-methoxypropanoic acid (PFMPA)			20.0	19.4		ng/L		97	48 - 150		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*86.1*		*10 - 130*
13C5 PFPeA	*84.3*		*40 - 150*
13C5 PFHxA	*89.6*		*40 - 150*
13C4 PFHpA	*80.4*		*40 - 150*
13C9 PFNA	*74.5*		*30 - 140*
13C6 PFDA	*79.9*		*20 - 140*
13C7 PFUnA	*80.2*		*20 - 140*
13C2 PFTeDA	*64.2*		*10 - 130*
13C3 PFBS	*85.1*		*25 - 150*
13C3 PFHxS	*78.9*		*25 - 150*
13C8 PFOS	*82.7*		*20 - 140*
d3-NMeFOSAA	*94.1*		*10 - 200*
d5-NEtFOSAA	*92.0*		*10 - 200*
13C2 PFDoA	*71.1*		*10 - 150*
13C2 4:2 FTS	*99.1*		*25 - 200*
13C2 6:2 FTS	*106*		*25 - 200*
13C2 8:2 FTS	*97.3*		*25 - 200*
13C3 HFPO-DA	*74.7*		*25 - 160*
d7-N-MeFOSE-M	*65.5*		*10 - 150*
d9-N-EtFOSE-M	*54.8*		*10 - 150*
d5-NEtPFOSA	*67.8*		*10 - 130*
d3-NMePFOSA	*65.5*		*10 - 130*
13C2 PFOA	*96.3*		*40 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

LCMS

Prep Batch: 691924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230467-1	DC740014-MW-4	Post-Treatment	Water	TOP Post Prep	
410-230467-2	DC740014-MW-2	Post-Treatment	Water	TOP Post Prep	
MB 410-691924/1-A	Method Blank	Post-Treatment	Water	TOP Post Prep	
MB 410-691924/2-A	Method Blank	Post-Treatment	Water	TOP Post Prep	
LCS 410-691924/3-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	
LCSD 410-691924/4-A	Lab Control Sample Dup	Post-Treatment	Water	TOP Post Prep	
LLCS 410-691924/5-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	

Analysis Batch: 693362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230467-1	DC740014-MW-4	Post-Treatment	Water	1633 TOPS	691924
410-230467-2	DC740014-MW-2	Post-Treatment	Water	1633 TOPS	691924
MB 410-691924/1-A	Method Blank	Post-Treatment	Water	1633 TOPS	691924
MB 410-691924/2-A	Method Blank	Post-Treatment	Water	1633 TOPS	691924
LCS 410-691924/3-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	691924
LCSD 410-691924/4-A	Lab Control Sample Dup	Post-Treatment	Water	1633 TOPS	691924
LLCS 410-691924/5-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	691924

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Client Sample ID: DC740014-MW-4
Lab Sample ID: 410-230467-1

Date Collected: 06/26/25 09:47
Matrix: Water
Date Received: 06/28/25 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			691924	S7AC	ELLE	08/28/25 11:44
Post-Treatment	Analysis	1633 TOPS		1	693362	QY4X	ELLE	09/02/25 12:29

Client Sample ID: DC740014-MW-2
Lab Sample ID: 410-230467-2

Date Collected: 06/26/25 10:53
Matrix: Water
Date Received: 06/28/25 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			691924	S7AC	ELLE	08/28/25 11:44
Post-Treatment	Analysis	1633 TOPS		1	693362	QY4X	ELLE	09/02/25 12:43

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633 TOPS	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633 TOPS	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633 TOPS	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633 TOPS	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633 TOPS	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633 TOPS	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
1633 TOPS	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
1633 TOPS	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
1633 TOPS	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
1633 TOPS	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Method	Method Description	Protocol	Laboratory
1633 TOPS	Fluorinated Alkyl Substances	EPA	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Job ID: 410-230467-2
Project/Site: Fabric Care Center (DC740014)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-230467-1	DC740014-MW-4	Water	06/26/25 09:47	06/28/25 11:10	North Carolina
410-230467-2	DC740014-MW-2	Water	06/26/25 10:53	06/28/25 11:10	North Carolina

ironme

Chain of Custody Record

eurofins | Environment Testing

410-230467 Chain of Custody

Mandy Klaben	Sampler: Rachel Schmidt + Nick Stone	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159678-44153.1
Company: Hart & Hickman, PC	Phone: 919-847-4241	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Address: 3921 Sunset Ridge Rd Suite 301	PWSID:	Due Date Requested:	Analysis Requested	Job #: DSO.PFAS
City: Raleigh		TAT Requested (days): H+H Standard (10 days)		Preservation Codes: N - None
State, Zip: NC, 27607		Compliance Project: Δ Yes Δ No		
Phone: 704-887-4608(Tel)		PO #: DSO.PFAS		
Email: mklaben@harthickman.com		WO #:		
Project Name: Fabric Care Center (DC740014)		Project #: 41025876		
Site:		SSOW#:		Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS	1633 Final	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N			
DC740014-MW-4	6/26/25	0947	G	Water	N	N	X	X	3	*Hold TOPS analysis until further notice
DC740014-MW-2	6/26/25	1053	G	Water	N	N	X	X	3	
DC740014-DUP	6/26/25		G	Water	N	N		X	2	*Please report J flags + report non-detects as < MDL
				Water						
DC740014-FB	6/26/25	1113	G	Water	N	N		X	2	
DC740014-EB	6/26/25	1110	G	Water	N	N		X	2	*EDD formats: H+H, DSCA, NCDEQ

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by: Rachel Schmidt	Date/Time: 6/26/25 1430	Company: H+H	Received by:	Date/Time: 06/27/25 1345	Company		
Relinquished by:	Date/Time: 06/27/25 1700	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/28/25 11:10	Company		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: R 4.0 C4.0

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-230467-2

Login Number: 230467

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Leakway, Christian

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

FERREE CLEANERS

DC120001

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/15/2025 6:00:22 PM

JOB DESCRIPTION

Ferree Cleaners (DC120001)

JOB NUMBER

410-229644-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/15/2025 6:00:22 PM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

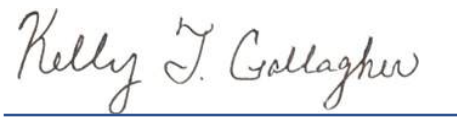


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Definitions/Glossary

Client: Hart & Hickman, PC
Project/Site: Ferree Cleaners (DC120001)

Job ID: 410-229644-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-229644-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/27/2025 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

The Chain-of-Custody (COC) was incomplete as received. The COC is missing Number of containers per sample. This does not meet regulatory requirements.

PFAS
Method 1633A: Analyte 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS) is out of QC acceptance limits in the lower-level laboratory control spike (LLCS) in sample: DC120001-MW-7 (410-229644-1), DC120001-MW-10 (410-229644-2), DC120001-EB (410-229644-3), DC120001-FB (410-229644-4) and DC120001-DUP-1 (410-229644-5). Since the recovery for this analyte is within QC acceptance limits in the laboratory control spike (LCS), the data is reported.

Method 1633A: The labeled isotopes d3-NMeFOSAA are outside QC acceptance limits. Since the recovery in sample DC120001-MW-10 (410-229644-2) is greater than 5%, and the signal to noise ratio is greater than 10:1, the data is reported.

Method 1633A: The transition mass ratio for Perfluorooctanesulfonic acid (PFOS) in sample DC120001-MW-7 (410-229644-1) in analytical batch 410-669314 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

Method 1633A: The transition mass ratio for Perfluorooctanesulfonic acid (PFOS) in sample DC120001-DUP-1 (410-229644-5) in analytical batch 410-669314 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

Method 1633A: Analyte Perfluorohexanoic acid (PFHxA), Perfluorooctanoic acid (PFOA) and Perfluorononanoic acid (PFNA) was marked as non-detect for sample DC120001-MW-10 (410-229644-2) due to a detection below RL and failing ion ratio.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Ferree Cleaners (DC120001)

Job ID: 410-229644-1

Client Sample ID: DC120001-MW-7 — Lab Sample ID: 410-229644-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	9.8		3.0	0.82	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	44		1.5	0.45	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	24		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	9.1		1.5	0.60	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	86		1.5	0.67	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	2.8		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.4		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.7		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	14		1.5	0.60	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	10		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	47	I cn	1.5	0.97	ng/L	1		1633A	Total/NA

Client Sample ID: DC120001-MW-10 — Lab Sample ID: 410-229644-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.2	J	2.9	0.79	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.8		1.4	0.93	ng/L	1		1633A	Total/NA
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.48	J	1.4	0.36	ng/L	1		1633A	Total/NA

Client Sample ID: DC120001-EB — Lab Sample ID: 410-229644-3

No Detections.

Client Sample ID: DC120001-FB — Lab Sample ID: 410-229644-4

No Detections.

Client Sample ID: DC120001-DUP-1 — Lab Sample ID: 410-229644-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	10		3.0	0.82	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	44		1.5	0.45	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	25		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	9.7		1.5	0.60	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	80		1.5	0.67	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	2.7		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.6		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.1		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	14		1.5	0.60	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	9.3		1.5	0.37	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	42	I cn	1.5	0.97	ng/L	1		1633A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: Ferree Cleaners (DC120001)

Job ID: 410-229644-1

Client Sample ID: DC120001-MW-7
Date Collected: 06/26/25 10:50
Date Received: 06/27/25 10:00

Lab Sample ID: 410-229644-1
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**9.8**		3.0	0.82	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluoropentanoic acid (PFPeA)	**44**		1.5	0.45	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorohexanoic acid (PFHxA)	**24**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluoroheptanoic acid (PFHpA)	**9.1**		1.5	0.60	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorooctanoic acid (PFOA)	**86**		1.5	0.67	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorononanoic acid (PFNA)	**2.8**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorobutanesulfonic acid (PFBS)	**6.4**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluoropentanesulfonic acid (PFPeS)	**3.7**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorohexanesulfonic acid (PFHxS)	**14**		1.5	0.60	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluoroheptanesulfonic acid (PFHpS)	**10**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorooctanesulfonic acid (PFOS)	**47**	**l cn**	1.5	0.97	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.45	ng/L		07/09/25 15:04	07/10/25 18:52	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 18:52	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 18:52	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.5	1.9	ng/L		07/09/25 15:04	07/10/25 18:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.5	3.0	ng/L		07/09/25 15:04	07/10/25 18:52	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.0	ng/L		07/09/25 15:04	07/10/25 18:52	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1

Client Sample ID: DC120001-MW-7
Lab Sample ID: 410-229644-1
Date Collected: 06/26/25 10:50
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 18:52	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 18:52	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.5	2.1	ng/L		07/09/25 15:04	07/10/25 18:52	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.5	1.9	ng/L		07/09/25 15:04	07/10/25 18:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*105*		*5 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C5 PFPeA	*122*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C5 PFHxA	*105*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C4 PFHpA	*109*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C8 PFOA	*103*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C9 PFNA	*107*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C6 PFDA	*103*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C7 PFUnA	*86.0*		*30 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C2 PFTeDA	*72.4*		*10 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C3 PFBS	*108*		*40 - 135*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C3 PFHxS	*112*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C8 PFOS	*104*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C8 FOSA	*87.4*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
d3-NMeFOSAA	*86.2*		*40 - 170*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
d5-NEtFOSAA	*80.3*		*25 - 135*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C2 4:2 FTS	*98.7*		*40 - 200*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C2 6:2 FTS	*109*		*40 - 200*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C2 8:2 FTS	*99.0*		*40 - 300*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C3 HFPO-DA	*97.1*		*40 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
d7-N-MeFOSE-M	*64.0*		*10 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
d9-N-EtFOSE-M	*62.5*		*10 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
d5-NEtPFOSA	*65.1*		*10 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
d3-NMePFOSA	*65.7*		*10 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*
13C2 PFDoA	*86.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 18:52*	*1*

Client Sample ID: DC120001-MW-10
Lab Sample ID: 410-229644-2
Date Collected: 06/26/25 11:35
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.2**	**J**	2.9	0.79	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluoropentanoic acid (PFPeA)	ND		1.4	0.43	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorohexanoic acid (PFHxA)	ND	cn	0.52	0.52	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluoroheptanoic acid (PFHpA)	ND		1.4	0.57	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorooctanoic acid (PFOA)	ND	cn	1.0	1.0	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorononanoic acid (PFNA)	ND	cn	0.43	0.43	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorodecanoic acid (PFDA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1

Client Sample ID: DC120001-MW-10
Lab Sample ID: 410-229644-2
Date Collected: 06/26/25 11:35
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorododecanoic acid (PFDoA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.4	0.57	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorooctanesulfonic acid (PFOS)	**2.8**		1.4	0.93	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorononanesulfonic acid (PFNS)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.4	0.43	ng/L		07/09/25 15:04	07/10/25 19:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.9	0.72	ng/L		07/09/25 15:04	07/10/25 19:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.9	0.72	ng/L		07/09/25 15:04	07/10/25 19:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.9	0.72	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	**0.48**	**J**	1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.2	1.8	ng/L		07/09/25 15:04	07/10/25 19:06	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.2	2.9	ng/L		07/09/25 15:04	07/10/25 19:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	1.0	ng/L		07/09/25 15:04	07/10/25 19:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.4	0.36	ng/L		07/09/25 15:04	07/10/25 19:06	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.9	0.72	ng/L		07/09/25 15:04	07/10/25 19:06	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.2	2.0	ng/L		07/09/25 15:04	07/10/25 19:06	1

Client Sample ID: DC120001-MW-10
Lab Sample ID: 410-229644-2
Date Collected: 06/26/25 11:35
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.2	1.8	ng/L		07/09/25 15:04	07/10/25 19:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.2*		*5 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C5 PFPeA	*108*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C5 PFHxA	*92.3*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C4 PFHpA	*92.6*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C8 PFOA	*88.4*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C9 PFNA	*101*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C6 PFDA	*78.0*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C7 PFUnA	*70.6*		*30 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C2 PFTeDA	*47.6*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C3 PFBS	*88.0*		*40 - 135*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C3 PFHxS	*95.4*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C8 PFOS	*86.3*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C8 FOSA	*60.9*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
d3-NMeFOSAA	*32.4*	**5- cn*	*40 - 170*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
d5-NEtFOSAA	*52.1*		*25 - 135*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C2 4:2 FTS	*94.5*		*40 - 200*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C2 6:2 FTS	*96.6*		*40 - 200*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C2 8:2 FTS	*80.6*		*40 - 300*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C3 HFPO-DA	*85.4*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
d7-N-MeFOSE-M	*42.2*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
d9-N-EtFOSE-M	*39.1*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
d5-NEtPFOSA	*45.4*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
d3-NMePFOSA	*51.5*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*
13C2 PFDoA	*57.5*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:06*	*1*

Client Sample ID: DC120001-EB
Lab Sample ID: 410-229644-3
Date Collected: 06/26/25 11:25
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1	0.85	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.46	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.62	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.69	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.62	ng/L		07/09/25 15:04	07/10/25 19:20	1

Client Sample ID: DC120001-EB
Lab Sample ID: 410-229644-3
Date Collected: 06/26/25 11:25
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	1.0	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.46	ng/L		07/09/25 15:04	07/10/25 19:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.77	ng/L		07/09/25 15:04	07/10/25 19:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.77	ng/L		07/09/25 15:04	07/10/25 19:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.77	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.7	1.9	ng/L		07/09/25 15:04	07/10/25 19:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.7	3.1	ng/L		07/09/25 15:04	07/10/25 19:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/09/25 15:04	07/10/25 19:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.39	ng/L		07/09/25 15:04	07/10/25 19:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.77	ng/L		07/09/25 15:04	07/10/25 19:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.7	2.2	ng/L		07/09/25 15:04	07/10/25 19:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.7	1.9	ng/L		07/09/25 15:04	07/10/25 19:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*5 - 130*	*07/09/25 15:04*	*07/10/25 19:20*	*1*
13C5 PFPeA	*122*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:20*	*1*
13C5 PFHxA	*108*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:20*	*1*
13C4 PFHpA	*110*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:20*	*1*
13C8 PFOA	*101*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:20*	*1*
13C9 PFNA	*103*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:20*	*1*

Client Sample ID: DC120001-EB
Lab Sample ID: 410-229644-3

Date Collected: 06/26/25 11:25
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6 PFDA	92.9		40 - 130	07/09/25 15:04	07/10/25 19:20	1
13C7 PFUnA	91.0		30 - 130	07/09/25 15:04	07/10/25 19:20	1
13C2 PFTeDA	82.8		10 - 130	07/09/25 15:04	07/10/25 19:20	1
13C3 PFBS	98.5		40 - 135	07/09/25 15:04	07/10/25 19:20	1
13C3 PFHxS	101		40 - 130	07/09/25 15:04	07/10/25 19:20	1
13C8 PFOS	102		40 - 130	07/09/25 15:04	07/10/25 19:20	1
13C8 FOSA	87.9		40 - 130	07/09/25 15:04	07/10/25 19:20	1
d3-NMeFOSAA	87.4		40 - 170	07/09/25 15:04	07/10/25 19:20	1
d5-NEtFOSAA	86.2		25 - 135	07/09/25 15:04	07/10/25 19:20	1
13C2 4:2 FTS	96.4		40 - 200	07/09/25 15:04	07/10/25 19:20	1
13C2 6:2 FTS	107		40 - 200	07/09/25 15:04	07/10/25 19:20	1
13C2 8:2 FTS	97.3		40 - 300	07/09/25 15:04	07/10/25 19:20	1
13C3 HFPO-DA	103		40 - 130	07/09/25 15:04	07/10/25 19:20	1
d7-N-MeFOSE-M	72.3		10 - 130	07/09/25 15:04	07/10/25 19:20	1
d9-N-EtFOSE-M	73.2		10 - 130	07/09/25 15:04	07/10/25 19:20	1
d5-NEtPFOSA	70.8		10 - 130	07/09/25 15:04	07/10/25 19:20	1
d3-NMePFOSA	72.0		10 - 130	07/09/25 15:04	07/10/25 19:20	1
13C2 PFDoA	88.7		10 - 130	07/09/25 15:04	07/10/25 19:20	1

Client Sample ID: DC120001-FB
Lab Sample ID: 410-229644-4

Date Collected: 06/26/25 11:30
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.89	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.48	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.65	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.73	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.48	ng/L		07/09/25 15:04	07/10/25 19:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.81	ng/L		07/09/25 15:04	07/10/25 19:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.81	ng/L		07/09/25 15:04	07/10/25 19:33	1

Client: Hart & Hickman, PC
Project/Site: Ferree Cleaners (DC120001)

Job ID: 410-229644-1

Client Sample ID: DC120001-FB
Date Collected: 06/26/25 11:30
Date Received: 06/27/25 10:00

Lab Sample ID: 410-229644-4
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.81	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.1	2.0	ng/L		07/09/25 15:04	07/10/25 19:33	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.1	3.2	ng/L		07/09/25 15:04	07/10/25 19:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/09/25 15:04	07/10/25 19:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.40	ng/L		07/09/25 15:04	07/10/25 19:33	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.81	ng/L		07/09/25 15:04	07/10/25 19:33	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.1	2.3	ng/L		07/09/25 15:04	07/10/25 19:33	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.1	2.0	ng/L		07/09/25 15:04	07/10/25 19:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*105*		*5 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C5 PFPeA	*121*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C5 PFHxA	*108*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C4 PFHpA	*108*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C8 PFOA	*101*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C9 PFNA	*112*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C6 PFDA	*101*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C7 PFUnA	*89.9*		*30 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C2 PFTeDA	*93.2*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C3 PFBS	*103*		*40 - 135*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C3 PFHxS	*109*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C8 PFOS	*107*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C8 FOSA	*94.8*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
d3-NMeFOSAA	*99.7*		*40 - 170*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
d5-NEtFOSAA	*93.2*		*25 - 135*	*07/09/25 15:04*	*07/10/25 19:33*	*1*
13C2 4:2 FTS	*102*		*40 - 200*	*07/09/25 15:04*	*07/10/25 19:33*	*1*

Client Sample ID: DC120001-FB
Lab Sample ID: 410-229644-4
Date Collected: 06/26/25 11:30
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 6:2 FTS	113		40 - 200	07/09/25 15:04	07/10/25 19:33	1
13C2 8:2 FTS	104		40 - 300	07/09/25 15:04	07/10/25 19:33	1
13C3 HFPO-DA	98.7		40 - 130	07/09/25 15:04	07/10/25 19:33	1
d7-N-MeFOSE-M	80.9		10 - 130	07/09/25 15:04	07/10/25 19:33	1
d9-N-EtFOSE-M	80.6		10 - 130	07/09/25 15:04	07/10/25 19:33	1
d5-NEtPFOSA	73.9		10 - 130	07/09/25 15:04	07/10/25 19:33	1
d3-NMePFOSA	76.1		10 - 130	07/09/25 15:04	07/10/25 19:33	1
13C2 PFDoA	94.6		10 - 130	07/09/25 15:04	07/10/25 19:33	1

Client Sample ID: DC120001-DUP-1
Lab Sample ID: 410-229644-5
Date Collected: 06/26/25 00:00
Matrix: Water
Date Received: 06/27/25 10:00

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**10**		3.0	0.82	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluoropentanoic acid (PFPeA)	**44**		1.5	0.45	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorohexanoic acid (PFHxA)	**25**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluoroheptanoic acid (PFHpA)	**9.7**		1.5	0.60	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorooctanoic acid (PFOA)	**80**		1.5	0.67	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorononanoic acid (PFNA)	**2.7**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorobutanesulfonic acid (PFBS)	**6.6**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluoropentanesulfonic acid (PFPeS)	**3.1**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorohexanesulfonic acid (PFHxS)	**14**		1.5	0.60	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluoroheptanesulfonic acid (PFHpS)	**9.3**		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorooctanesulfonic acid (PFOS)	**42**	**I cn**	1.5	0.97	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.45	ng/L		07/09/25 15:04	07/10/25 19:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 19:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 19:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1

Client: Hart & Hickman, PC
Project/Site: Ferree Cleaners (DC120001)

Job ID: 410-229644-1

Client Sample ID: DC120001-DUP-1
Date Collected: 06/26/25 00:00
Date Received: 06/27/25 10:00

Lab Sample ID: 410-229644-5
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.5	1.9	ng/L		07/09/25 15:04	07/10/25 19:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.5	3.0	ng/L		07/09/25 15:04	07/10/25 19:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.0	ng/L		07/09/25 15:04	07/10/25 19:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 19:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 19:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.5	2.1	ng/L		07/09/25 15:04	07/10/25 19:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.5	1.9	ng/L		07/09/25 15:04	07/10/25 19:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98.1*		*5 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C5 PFPeA	*127*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C5 PFHxA	*102*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C4 PFHpA	*99.5*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C8 PFOA	*102*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C9 PFNA	*107*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C6 PFDA	*96.8*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C7 PFUnA	*82.8*		*30 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C2 PFTeDA	*74.0*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C3 PFBS	*98.3*		*40 - 135*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C3 PFHxS	*104*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C8 PFOS	*98.8*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C8 FOSA	*80.1*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
d3-NMeFOSAA	*85.1*		*40 - 170*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
d5-NEtFOSAA	*83.5*		*25 - 135*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C2 4:2 FTS	*98.7*		*40 - 200*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C2 6:2 FTS	*107*		*40 - 200*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C2 8:2 FTS	*94.9*		*40 - 300*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C3 HFPO-DA	*103*		*40 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
d7-N-MeFOSE-M	*63.6*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
d9-N-EtFOSE-M	*59.1*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
d5-NEtPFOSA	*67.1*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
d3-NMePFOSA	*71.7*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*
13C2 PFDoA	*77.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 19:47*	*1*

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: Ferree Cleaners (DC120001)

Job ID: 410-229644-1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-229644-1	DC120001-MW-7	105	122	105	109	103	107	103	86.0
410-229644-2	DC120001-MW-10	92.2	108	92.3	92.6	88.4	101	78.0	70.6
410-229644-3	DC120001-EB	102	122	108	110	101	103	92.9	91.0
410-229644-4	DC120001-FB	105	121	108	108	101	112	101	89.9
410-229644-5	DC120001-DUP-1	98.1	127	102	99.5	102	107	96.8	82.8
LCS 410-668972/14-A	Lab Control Sample	105	114	99.2	92.4	92.9	97.1	89.5	85.1
LCSD 410-668972/15-A	Lab Control Sample Dup	105	126	107	101	90.2	99.6	84.7	68.3
LLCS 410-668972/16-A	Lab Control Sample	89.2	104	88.4	82.9	80.5	78.9	71.1	65.5
MB 410-668972/13-A	Method Blank	99.2	109	107	102	96.8	100	88.8	82.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-229644-1	DC120001-MW-7	72.4	108	112	104	87.4	86.2	80.3	98.7
410-229644-2	DC120001-MW-10	47.6	88.0	95.4	86.3	60.9	32.4 *5-cn	52.1	94.5
410-229644-3	DC120001-EB	82.8	98.5	101	102	87.9	87.4	86.2	96.4
410-229644-4	DC120001-FB	93.2	103	109	107	94.8	99.7	93.2	102
410-229644-5	DC120001-DUP-1	74.0	98.3	104	98.8	80.1	85.1	83.5	98.7
LCS 410-668972/14-A	Lab Control Sample	69.7	91.9	93.0	93.5	87.4	80.4	82.0	96.1
LCSD 410-668972/15-A	Lab Control Sample Dup	57.7	93.5	90.9	92.6	83.3	76.1	67.9	104
LLCS 410-668972/16-A	Lab Control Sample	45.2	78.1	80.2	76.5	73.1	69.1	64.8	85.8
MB 410-668972/13-A	Method Blank	77.8	94.7	97.7	93.9	73.9	76.7	75.4	110

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-229644-1	DC120001-MW-7	109	99.0	97.1	64.0	62.5	65.1	65.7	86.3
410-229644-2	DC120001-MW-10	96.6	80.6	85.4	42.2	39.1	45.4	51.5	57.5
410-229644-3	DC120001-EB	107	97.3	103	72.3	73.2	70.8	72.0	88.7
410-229644-4	DC120001-FB	113	104	98.7	80.9	80.6	73.9	76.1	94.6
410-229644-5	DC120001-DUP-1	107	94.9	103	63.6	59.1	67.1	71.7	77.3
LCS 410-668972/14-A	Lab Control Sample	93.8	88.9	87.8	70.8	70.5	63.2	65.6	87.2
LCSD 410-668972/15-A	Lab Control Sample Dup	105	88.4	106	52.8	48.9	56.0	59.5	66.2
LLCS 410-668972/16-A	Lab Control Sample	83.0	74.2	86.1	48.5	45.2	55.8	57.2	59.2
MB 410-668972/13-A	Method Blank	104	87.4	97.4	68.9	65.9	58.7	55.0	76.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229644-1
Project/Site: Ferree Cleaners (DC120001)

d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/09/25 15:04	07/11/25 18:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/09/25 15:04	07/11/25 18:25	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.2*		*5 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C5 PFPeA	*109*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C5 PFHxA	*107*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C4 PFHpA	*102*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 PFOA	*96.8*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C9 PFNA	*100*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C6 PFDA	*88.8*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C7 PFUnA	*82.2*		*30 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 PFTeDA	*77.8*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 PFBS	*94.7*		*40 - 135*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 PFHxS	*97.7*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 PFOS	*93.9*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 FOSA	*73.9*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d3-NMeFOSAA	*76.7*		*40 - 170*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d5-NEtFOSAA	*75.4*		*25 - 135*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 4:2 FTS	*110*		*40 - 200*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 6:2 FTS	*104*		*40 - 200*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 8:2 FTS	*87.4*		*40 - 300*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 HFPO-DA	*97.4*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d7-N-MeFOSE-M	*68.9*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d9-N-EtFOSE-M	*65.9*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d5-NEtPFOSA	*58.7*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d3-NMePFOSA	*55.0*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 PFDoA	*76.1*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	67.4		ng/L		84	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	33.5		ng/L		84	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	32.5		ng/L		81	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	36.9		ng/L		92	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	34.1		ng/L		85	70 - 150
Perfluorononanoic acid (PFNA)	40.0	33.3		ng/L		83	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	37.5		ng/L		94	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	41.0		ng/L		103	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	37.8		ng/L		94	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	36.3		ng/L		91	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	35.8		ng/L		90	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.6		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	34.0		ng/L		90	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	27.5		ng/L		75	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.8		ng/L		89	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	30.9		ng/L		83	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	28.6		ng/L		74	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	30.0		ng/L		78	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	21.4		ng/L		55	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	66.3		ng/L		88	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	65.0		ng/L		85	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	66.0		ng/L		86	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	38.6		ng/L		97	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	38.3		ng/L		96	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.6		ng/L		94	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.8		ng/L		94	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.6		ng/L		92	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	194		ng/L		97	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	182		ng/L		91	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.2		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	39.0		ng/L		103	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.2		ng/L		95	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	34.7		ng/L		87	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.8		ng/L		82	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	28.4		ng/L		76	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	27.9		ng/L		74	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.7		ng/L		86	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	66.9		ng/L		84	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	152		ng/L		76	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	153		ng/L		76	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*114*		*40 - 130*
13C5 PFHxA	*99.2*		*40 - 130*
13C4 PFHpA	*92.4*		*40 - 130*
13C8 PFOA	*92.9*		*40 - 130*
13C9 PFNA	*97.1*		*40 - 130*
13C6 PFDA	*89.5*		*40 - 130*
13C7 PFUnA	*85.1*		*30 - 130*
13C2 PFTeDA	*69.7*		*10 - 130*
13C3 PFBS	*91.9*		*40 - 135*
13C3 PFHxS	*93.0*		*40 - 130*
13C8 PFOS	*93.5*		*40 - 130*
13C8 FOSA	*87.4*		*40 - 130*
d3-NMeFOSAA	*80.4*		*40 - 170*
d5-NEtFOSAA	*82.0*		*25 - 135*
13C2 4:2 FTS	*96.1*		*40 - 200*
13C2 6:2 FTS	*93.8*		*40 - 200*
13C2 8:2 FTS	*88.9*		*40 - 300*
13C3 HFPO-DA	*87.8*		*40 - 130*
d7-N-MeFOSE-M	*70.8*		*10 - 130*
d9-N-EtFOSE-M	*70.5*		*10 - 130*
d5-NEtPFOSA	*63.2*		*10 - 130*
d3-NMePFOSA	*65.6*		*10 - 130*
13C2 PFDoA	*87.2*		*10 - 130*

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	71.4		ng/L		89	70 - 140	6	30
Perfluoropentanoic acid (PFPeA)			40.0	33.7		ng/L		84	65 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	33.2		ng/L		83	70 - 145	2	30
Perfluoroheptanoic acid (PFHpA)			40.0	36.7		ng/L		92	70 - 150	0	30
Perfluorooctanoic acid (PFOA)			40.0	34.6		ng/L		87	70 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	34.2		ng/L		86	70 - 150	3	30
Perfluorodecanoic acid (PFDA)	40.0	36.9		ng/L		92	70 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	42.8		ng/L		107	70 - 145	4	30
Perfluorododecanoic acid (PFDoA)	40.0	41.7		ng/L		104	70 - 140	10	30
Perfluorotridecanoic acid (PFTrDA)	40.0	35.9		ng/L		90	65 - 140	1	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.3		ng/L		76	60 - 140	17	30
Perfluorobutanesulfonic acid (PFBS)	35.5	30.6		ng/L		86	60 - 145	0	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	36.7		ng/L		98	65 - 140	8	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	30.4		ng/L		83	65 - 145	10	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	34.6		ng/L		91	70 - 150	2	30
Perfluorooctanesulfonic acid (PFOS)	37.2	31.9		ng/L		86	55 - 150	3	30
Perfluorononanesulfonic acid (PFNS)	38.5	26.4		ng/L		69	65 - 145	8	30
Perfluorodecanesulfonic acid (PFDS)	38.6	25.3		ng/L		66	60 - 145	17	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	20.7		ng/L		53	50 - 145	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	65.4		ng/L		87	70 - 145	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	63.1		ng/L		83	65 - 155	3	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	65.4		ng/L		85	60 - 150	1	30
Perfluorooctanesulfonamide (PFOSA)	40.0	38.9		ng/L		97	70 - 145	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.4		ng/L		98	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	39.3		ng/L		98	65 - 145	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	34.3		ng/L		86	50 - 140	10	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.8		ng/L		92	70 - 145	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	192		ng/L		96	70 - 145	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	179		ng/L		89	70 - 135	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	28.5		ng/L		95	70 - 140	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.1		ng/L		93	65 - 145	11	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	39.5		ng/L		99	55 - 140	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	33.5		ng/L		84	60 - 150	4	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	39.1		ng/L		98	50 - 150	18	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	27.5		ng/L		73	70 - 155	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	24.0		ng/L		64	55 - 160	15	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.5		ng/L		85	70 - 140	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	69.8		ng/L		87	65 - 130	4	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	168		ng/L		84	70 - 135	10	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	139		ng/L		69	50 - 145	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*126*		*40 - 130*
13C5 PFHxA	*107*		*40 - 130*
13C4 PFHpA	*101*		*40 - 130*
13C8 PFOA	*90.2*		*40 - 130*
13C9 PFNA	*99.6*		*40 - 130*
13C6 PFDA	*84.7*		*40 - 130*
13C7 PFUnA	*68.3*		*30 - 130*
13C2 PFTeDA	*57.7*		*10 - 130*
13C3 PFBS	*93.5*		*40 - 135*
13C3 PFHxS	*90.9*		*40 - 130*
13C8 PFOS	*92.6*		*40 - 130*
13C8 FOSA	*83.3*		*40 - 130*
d3-NMeFOSAA	*76.1*		*40 - 170*
d5-NEtFOSAA	*67.9*		*25 - 135*
13C2 4:2 FTS	*104*		*40 - 200*
13C2 6:2 FTS	*105*		*40 - 200*
13C2 8:2 FTS	*88.4*		*40 - 300*
13C3 HFPO-DA	*106*		*40 - 130*
d7-N-MeFOSE-M	*52.8*		*10 - 130*
d9-N-EtFOSE-M	*48.9*		*10 - 130*
d5-NEtPFOSA	*56.0*		*10 - 130*
d3-NMePFOSA	*59.5*		*10 - 130*
13C2 PFDoA	*66.2*		*10 - 130*

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	6.82		ng/L		85	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	2.97		ng/L		74	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.46		ng/L		87	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.74		ng/L		94	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.44		ng/L		111	70 - 150
Perfluorononanoic acid (PFNA)	4.00	5.42		ng/L		135	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.82		ng/L		120	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.65		ng/L		91	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.86		ng/L		97	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.73		ng/L		93	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.97		ng/L		99	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.99		ng/L		84	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.33		ng/L		89	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	2.85		ng/L		78	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.28		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.37		ng/L		91	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	2.51		ng/L		65	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	2.71		ng/L		70	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.03		ng/L		52	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.89		ng/L		92	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	6.37		ng/L		84	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	6.56		ng/L		85	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.55	I	ng/L		89	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.93		ng/L		98	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.12		ng/L		103	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.22		ng/L		80	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.54		ng/L		88	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.2		ng/L		106	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.3		ng/L		97	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.73		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.16		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.76		ng/L		94	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.20		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.61		ng/L		90	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	2.57	*-	ng/L		69	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.42		ng/L		64	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	2.63		ng/L		74	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.60		ng/L		83	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	15.7		ng/L		79	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	13.7		ng/L		68	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*89.2*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*88.4*		*40 - 130*
13C4 PFHpA	*82.9*		*40 - 130*
13C8 PFOA	*80.5*		*40 - 130*
13C9 PFNA	*78.9*		*40 - 130*
13C6 PFDA	*71.1*		*40 - 130*
13C7 PFUnA	*65.5*		*30 - 130*
13C2 PFTeDA	*45.2*		*10 - 130*
13C3 PFBS	*78.1*		*40 - 135*
13C3 PFHxS	*80.2*		*40 - 130*
13C8 PFOS	*76.5*		*40 - 130*
13C8 FOSA	*73.1*		*40 - 130*
d3-NMeFOSAA	*69.1*		*40 - 170*
d5-NEtFOSAA	*64.8*		*25 - 135*
13C2 4:2 FTS	*85.8*		*40 - 200*
13C2 6:2 FTS	*83.0*		*40 - 200*
13C2 8:2 FTS	*74.2*		*40 - 300*
13C3 HFPO-DA	*86.1*		*40 - 130*
d7-N-MeFOSE-M	*48.5*		*10 - 130*
d9-N-EtFOSE-M	*45.2*		*10 - 130*
d5-NEtPFOSA	*55.8*		*10 - 130*
d3-NMePFOSA	*57.2*		*10 - 130*
13C2 PFDoA	*59.2*		*10 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: Ferree Cleaners (DC120001)

Job ID: 410-229644-1

LCMS

Prep Batch: 668972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229644-1	DC120001-MW-7	Total/NA	Water	1633A	
410-229644-2	DC120001-MW-10	Total/NA	Water	1633A	
410-229644-3	DC120001-EB	Total/NA	Water	1633A	
410-229644-4	DC120001-FB	Total/NA	Water	1633A	
410-229644-5	DC120001-DUP-1	Total/NA	Water	1633A	
MB 410-668972/13-A	Method Blank	Total/NA	Water	1633A	
LCS 410-668972/14-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-668972/15-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-668972/16-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 669314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229644-1	DC120001-MW-7	Total/NA	Water	1633A	668972
410-229644-2	DC120001-MW-10	Total/NA	Water	1633A	668972
410-229644-3	DC120001-EB	Total/NA	Water	1633A	668972
410-229644-4	DC120001-FB	Total/NA	Water	1633A	668972
410-229644-5	DC120001-DUP-1	Total/NA	Water	1633A	668972
LCS 410-668972/14-A	Lab Control Sample	Total/NA	Water	1633A	668972
LCSD 410-668972/15-A	Lab Control Sample Dup	Total/NA	Water	1633A	668972
LLCS 410-668972/16-A	Lab Control Sample	Total/NA	Water	1633A	668972

Analysis Batch: 670041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-668972/13-A	Method Blank	Total/NA	Water	1633A	668972

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-229644-1
Project/Site: Ferree Cleaners (DC120001)

Client Sample ID: DC120001-MW-7
Lab Sample ID: 410-229644-1
Date Collected: 06/26/25 10:50
Matrix: Water
Date Received: 06/27/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 18:52

Client Sample ID: DC120001-MW-10
Lab Sample ID: 410-229644-2
Date Collected: 06/26/25 11:35
Matrix: Water
Date Received: 06/27/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 19:06

Client Sample ID: DC120001-EB
Lab Sample ID: 410-229644-3
Date Collected: 06/26/25 11:25
Matrix: Water
Date Received: 06/27/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 19:20

Client Sample ID: DC120001-FB
Lab Sample ID: 410-229644-4
Date Collected: 06/26/25 11:30
Matrix: Water
Date Received: 06/27/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 19:33

Client Sample ID: DC120001-DUP-1
Lab Sample ID: 410-229644-5
Date Collected: 06/26/25 00:00
Matrix: Water
Date Received: 06/27/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 19:47

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229644-1
Project/Site: Ferree Cleaners (DC120001)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229644-1
Project/Site: Ferree Cleaners (DC120001)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: Ferree Cleaners (DC120001)

Job ID: 410-229644-1

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: Ferree Cleaners (DC120001)

Job ID: 410-229644-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-229644-1	DC120001-MW-7	Water	06/26/25 10:50	06/27/25 10:00
410-229644-2	DC120001-MW-10	Water	06/26/25 11:35	06/27/25 10:00
410-229644-3	DC120001-EB	Water	06/26/25 11:25	06/27/25 10:00
410-229644-4	DC120001-FB	Water	06/26/25 11:30	06/27/25 10:00
410-229644-5	DC120001-DUP-1	Water	06/26/25 00:00	06/27/25 10:00

410-229644 Chain of Custody

ironme

Chain of Custody Record

eurofins | Environment Testing

Sam Martin	Sampler: Jacob Sand	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159589-44140.1
Company: Hart & Hickman, PC	Phone: 704 936 6058	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Address: 2923 S Tryon Street Suite 100	PWSID:	Analysis Requested		Job #:
City: Charlotte	Due Date Requested: 7th Standard TAT			Preservation Codes: N - None
State, Zip: NC, 28203	TAT Requested (days): (10-day)			
Phone: 704-887-4608(Tel)	Compliance Project: Δ Yes Δ No			
Email: smartin@harthickman.com	PO #: DS0.PFAS			
Project Name: Ferree Cleaners (DC120001)	WO #:			
Site:	Project #: 41025876			Other:
	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS (POST)	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC120001-MW-7	6/26/25	1050	G	Water	N	N	X	X		☆ Please report J flags + report nondetects as CMDLs
DC120001-MW-10		1135		Water			X	X		
DC120001-EB		1125		Water				X		
DC120001-FB		1130		Water				X		
DC120001-DUP-1				Water				X		☆ EDD formats H+H, NCDEQ, DSCA
				Water						☆ ALL TOP analytes hold until 1633 results

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: (H+H)	Date/Time: 6/25/25 1600	Company: H+H	Received by:
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Received by:	Date/Time:	Company	
Received by:	Date/Time:	Company	
Received by:	Date/Time: 6/27/25 1000	Company: BLGS	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: R: 5.1 - 5.8 C: 5.1 - 5.8

DS3

Ver: 10/10/2024

7/15/2025

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-229644-1

Login Number: 229644
List Number: 1
Creator: Bryan, Debra A

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

HOLLYWOOD CLEANERS

DC320014

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/15/2025 6:18:38 PM

JOB DESCRIPTION

Hollywood Cleaners (DC320014)

JOB NUMBER

410-230457-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Kelly J. Gallagher

Generated
7/15/2025 6:18:38 PM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

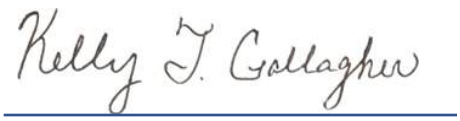


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-230457-1
Project/Site: Hollywood Cleaners (DC320014)

Qualifiers

LCMS

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-230457-1 — Eurofins Lancaster Laboratories Environment

Job Narrative
410-230457-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/26/2025 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.9°C and 4.8°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

The Chain-of-Custody (COC) was incomplete as received. The COC is missing Number of containers per sample. This does not meet regulatory requirements.

PFAS
Method 1633A: Analyte 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS) is out of QC acceptance limits in the lower-level laboratory control spike (LLCS) in sample: DC320014-MW-1 (410-230457-1), DC320014-MW-10 (410-230457-2), DC320014-DUP (410-230457-3), DC320014-EB-1 (410-230457-4), DC320014-EB-2 (410-230457-5) and DC320014-FB (410-230457-6). Since the recovery for this analyte is within QC acceptance limits in the laboratory control spike (LCS), the data is reported.

Method 1633A: The labeled isotopes 13C5 PFHxA are outside QC acceptance limits. Since the recovery in sample DC320014-FB (410-230457-6) is less than 200%, the data is reported.

Method 1633A: The transition mass ratio for Perfluorononanoic acid (PFNA) in sample DC320014-DUP (410-230457-3) in analytical batch 410-669314 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Hollywood Cleaners (DC320014)

Job ID: 410-230457-1

Client Sample ID: DC320014-MW-1 — Lab Sample ID: 410-230457-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	9.1		3.0	0.83	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	19		1.5	0.45	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	15		1.5	0.38	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.6		1.5	0.60	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	15		1.5	0.68	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	3.6		1.5	0.38	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	15		1.5	0.38	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.81	J	1.5	0.38	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.2		1.5	0.60	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10		1.5	0.98	ng/L	1		1633A	Total/NA

Client Sample ID: DC320014-MW-10 — Lab Sample ID: 410-230457-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.5		3.6	0.99	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	6.3		1.8	0.54	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	6.5		1.8	0.45	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	6.0		1.8	0.72	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	14		1.8	0.81	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	2.2		1.8	0.45	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.3		1.8	0.45	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.8		1.8	0.72	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.2		1.8	1.2	ng/L	1		1633A	Total/NA

Client Sample ID: DC320014-DUP — Lab Sample ID: 410-230457-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.3		3.5	0.95	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	6.0		1.7	0.52	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	6.6		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.5		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	15		1.7	0.78	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	2.2	I cn	1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.2		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.0		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.7		1.7	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC320014-EB-1 — Lab Sample ID: 410-230457-4

No Detections.

Client Sample ID: DC320014-EB-2 — Lab Sample ID: 410-230457-5

No Detections.

Client Sample ID: DC320014-FB — Lab Sample ID: 410-230457-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: Hollywood Cleaners (DC320014)

Job ID: 410-230457-1

Client Sample ID: DC320014-MW-1
Date Collected: 06/25/25 09:17
Date Received: 06/26/25 10:15

Lab Sample ID: 410-230457-1
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**9.1**		3.0	0.83	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluoropentanoic acid (PFPeA)	**19**		1.5	0.45	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorohexanoic acid (PFHxA)	**15**		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluoroheptanoic acid (PFHpA)	**8.6**		1.5	0.60	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorooctanoic acid (PFOA)	**15**		1.5	0.68	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorononanoic acid (PFNA)	**3.6**		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorobutanesulfonic acid (PFBS)	**15**		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluoropentanesulfonic acid (PFPeS)	**0.81**	**J**	1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorohexanesulfonic acid (PFHxS)	**3.2**		1.5	0.60	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorooctanesulfonic acid (PFOS)	**10**		1.5	0.98	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.45	ng/L		07/09/25 15:04	07/10/25 21:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.76	ng/L		07/09/25 15:04	07/10/25 21:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.76	ng/L		07/09/25 15:04	07/10/25 21:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.76	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.6	1.9	ng/L		07/09/25 15:04	07/10/25 21:36	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.6	3.0	ng/L		07/09/25 15:04	07/10/25 21:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/09/25 15:04	07/10/25 21:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1

Client Sample ID: DC320014-MW-1
Lab Sample ID: 410-230457-1
Date Collected: 06/25/25 09:17
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:36	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.76	ng/L		07/09/25 15:04	07/10/25 21:36	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.6	2.1	ng/L		07/09/25 15:04	07/10/25 21:36	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.6	1.9	ng/L		07/09/25 15:04	07/10/25 21:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*5 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C5 PFPeA	*129*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C5 PFHxA	*110*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C4 PFHpA	*115*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C8 PFOA	*104*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C9 PFNA	*107*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C6 PFDA	*101*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C7 PFUnA	*89.1*		*30 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C2 PFTeDA	*84.1*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C3 PFBS	*105*		*40 - 135*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C3 PFHxS	*106*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C8 PFOS	*107*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C8 FOSA	*92.6*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
d3-NMeFOSAA	*94.0*		*40 - 170*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
d5-NEtFOSAA	*87.1*		*25 - 135*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C2 4:2 FTS	*99.6*		*40 - 200*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C2 6:2 FTS	*111*		*40 - 200*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C2 8:2 FTS	*101*		*40 - 300*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C3 HFPO-DA	*110*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
d7-N-MeFOSE-M	*71.6*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
d9-N-EtFOSE-M	*67.5*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
d5-NEtPFOSA	*70.7*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
d3-NMePFOSA	*75.7*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*
13C2 PFDoA	*93.8*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:36*	*1*

Client Sample ID: DC320014-MW-10
Lab Sample ID: 410-230457-2
Date Collected: 06/25/25 10:52
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.5**		3.6	0.99	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluoropentanoic acid (PFPeA)	**6.3**		1.8	0.54	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorohexanoic acid (PFHxA)	**6.5**		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluoroheptanoic acid (PFHpA)	**6.0**		1.8	0.72	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorooctanoic acid (PFOA)	**14**		1.8	0.81	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorononanoic acid (PFNA)	**2.2**		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1

Client Sample ID: DC320014-MW-10
Date Collected: 06/25/25 10:52
Date Received: 06/26/25 10:15

Lab Sample ID: 410-230457-2
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorobutanesulfonic acid (PFBS)	**6.3**		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorohexanesulfonic acid (PFHxS)	**1.8**		1.8	0.72	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorooctanesulfonic acid (PFOS)	**8.2**		1.8	1.2	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	0.54	ng/L		07/09/25 15:04	07/10/25 21:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.6	0.90	ng/L		07/09/25 15:04	07/10/25 21:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.6	0.90	ng/L		07/09/25 15:04	07/10/25 21:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.6	0.90	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.0	2.3	ng/L		07/09/25 15:04	07/10/25 21:49	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.0	3.6	ng/L		07/09/25 15:04	07/10/25 21:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.8	1.3	ng/L		07/09/25 15:04	07/10/25 21:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	0.45	ng/L		07/09/25 15:04	07/10/25 21:49	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.6	0.90	ng/L		07/09/25 15:04	07/10/25 21:49	1

Client Sample ID: DC320014-MW-10
Lab Sample ID: 410-230457-2
Date Collected: 06/25/25 10:52
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.0	2.5	ng/L		07/09/25 15:04	07/10/25 21:49	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.0	2.3	ng/L		07/09/25 15:04	07/10/25 21:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.5*		*5 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C5 PFPeA	*114*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C5 PFHxA	*106*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C4 PFHpA	*101*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C8 PFOA	*95.2*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C9 PFNA	*103*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C6 PFDA	*94.3*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C7 PFUnA	*86.5*		*30 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C2 PFTeDA	*78.1*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C3 PFBS	*100*		*40 - 135*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C3 PFHxS	*102*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C8 PFOS	*103*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C8 FOSA	*83.4*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
d3-NMeFOSAA	*90.6*		*40 - 170*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
d5-NEtFOSAA	*87.0*		*25 - 135*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C2 4:2 FTS	*97.8*		*40 - 200*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C2 6:2 FTS	*106*		*40 - 200*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C2 8:2 FTS	*95.1*		*40 - 300*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C3 HFPO-DA	*107*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
d7-N-MeFOSE-M	*69.4*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
d9-N-EtFOSE-M	*66.7*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
d5-NEtPFOSA	*63.1*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
d3-NMePFOSA	*64.7*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*
13C2 PFDoA	*90.1*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:49*	*1*

Client Sample ID: DC320014-DUP
Lab Sample ID: 410-230457-3
Date Collected: 06/25/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.3**		3.5	0.95	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluoropentanoic acid (PFPeA)	**6.0**		1.7	0.52	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorohexanoic acid (PFHxA)	**6.6**		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluoroheptanoic acid (PFHpA)	**5.5**		1.7	0.69	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorooctanoic acid (PFOA)	**15**		1.7	0.78	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorononanoic acid (PFNA)	**2.2**	**l cn**	1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorobutanesulfonic acid (PFBS)	**6.2**		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1

Client: Hart & Hickman, PC
Project/Site: Hollywood Cleaners (DC320014)

Job ID: 410-230457-1

Client Sample ID: DC320014-DUP
Date Collected: 06/25/25 00:00
Date Received: 06/26/25 10:15

Lab Sample ID: 410-230457-3
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**2.0**		1.7	0.69	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorooctanesulfonic acid (PFOS)	**8.7**		1.7	1.1	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.52	ng/L		07/09/25 15:04	07/10/25 22:03	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.87	ng/L		07/09/25 15:04	07/10/25 22:03	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	0.87	ng/L		07/09/25 15:04	07/10/25 22:03	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.87	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.7	2.2	ng/L		07/09/25 15:04	07/10/25 22:03	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.7	3.5	ng/L		07/09/25 15:04	07/10/25 22:03	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/09/25 15:04	07/10/25 22:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.43	ng/L		07/09/25 15:04	07/10/25 22:03	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.87	ng/L		07/09/25 15:04	07/10/25 22:03	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.7	2.4	ng/L		07/09/25 15:04	07/10/25 22:03	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.7	2.2	ng/L		07/09/25 15:04	07/10/25 22:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*108*		*5 - 130*	*07/09/25 15:04*	*07/10/25 22:03*	*1*
13C5 PFPeA	*113*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:03*	*1*
13C5 PFHxA	*97.7*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:03*	*1*

Client Sample ID: DC320014-DUP
Lab Sample ID: 410-230457-3
Date Collected: 06/25/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	96.7		40 - 130	07/09/25 15:04	07/10/25 22:03	1
13C8 PFOA	99.6		40 - 130	07/09/25 15:04	07/10/25 22:03	1
13C9 PFNA	109		40 - 130	07/09/25 15:04	07/10/25 22:03	1
13C6 PFDA	104		40 - 130	07/09/25 15:04	07/10/25 22:03	1
13C7 PFUnA	98.4		30 - 130	07/09/25 15:04	07/10/25 22:03	1
13C2 PFTeDA	90.3		10 - 130	07/09/25 15:04	07/10/25 22:03	1
13C3 PFBS	101		40 - 135	07/09/25 15:04	07/10/25 22:03	1
13C3 PFHxS	107		40 - 130	07/09/25 15:04	07/10/25 22:03	1
13C8 PFOS	105		40 - 130	07/09/25 15:04	07/10/25 22:03	1
13C8 FOSA	91.3		40 - 130	07/09/25 15:04	07/10/25 22:03	1
d3-NMeFOSAA	95.1		40 - 170	07/09/25 15:04	07/10/25 22:03	1
d5-NEtFOSAA	88.4		25 - 135	07/09/25 15:04	07/10/25 22:03	1
13C2 4:2 FTS	96.4		40 - 200	07/09/25 15:04	07/10/25 22:03	1
13C2 6:2 FTS	114		40 - 200	07/09/25 15:04	07/10/25 22:03	1
13C2 8:2 FTS	99.5		40 - 300	07/09/25 15:04	07/10/25 22:03	1
13C3 HFPO-DA	88.3		40 - 130	07/09/25 15:04	07/10/25 22:03	1
d7-N-MeFOSE-M	68.1		10 - 130	07/09/25 15:04	07/10/25 22:03	1
d9-N-EtFOSE-M	70.4		10 - 130	07/09/25 15:04	07/10/25 22:03	1
d5-NEtPFOSA	70.0		10 - 130	07/09/25 15:04	07/10/25 22:03	1
d3-NMePFOSA	73.9		10 - 130	07/09/25 15:04	07/10/25 22:03	1
13C2 PFDoA	95.0		10 - 130	07/09/25 15:04	07/10/25 22:03	1

Client Sample ID: DC320014-EB-1
Lab Sample ID: 410-230457-4
Date Collected: 06/25/25 11:05
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0	0.81	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.44	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.59	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.67	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.59	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.96	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.44	ng/L		07/09/25 15:04	07/10/25 22:16	1

Client Sample ID: DC320014-EB-1
Date Collected: 06/25/25 11:05
Date Received: 06/26/25 10:15

Lab Sample ID: 410-230457-4
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.74	ng/L		07/09/25 15:04	07/10/25 22:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.74	ng/L		07/09/25 15:04	07/10/25 22:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.74	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.4	1.9	ng/L		07/09/25 15:04	07/10/25 22:16	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.4	3.0	ng/L		07/09/25 15:04	07/10/25 22:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.0	ng/L		07/09/25 15:04	07/10/25 22:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 22:16	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.74	ng/L		07/09/25 15:04	07/10/25 22:16	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.4	2.1	ng/L		07/09/25 15:04	07/10/25 22:16	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.4	1.9	ng/L		07/09/25 15:04	07/10/25 22:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*103*		*5 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C5 PFPeA	*123*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C5 PFHxA	*104*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C4 PFHpA	*106*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C8 PFOA	*102*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C9 PFNA	*108*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C6 PFDA	*95.5*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C7 PFUnA	*88.7*		*30 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C2 PFTeDA	*87.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C3 PFBS	*103*		*40 - 135*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C3 PFHxS	*102*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*
13C8 PFOS	*101*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:16*	*1*

Client Sample ID: DC320014-EB-1
Lab Sample ID: 410-230457-4

Date Collected: 06/25/25 11:05
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	88.6		40 - 130	07/09/25 15:04	07/10/25 22:16	1
d3-NMeFOSAA	88.8		40 - 170	07/09/25 15:04	07/10/25 22:16	1
d5-NEtFOSAA	80.3		25 - 135	07/09/25 15:04	07/10/25 22:16	1
13C2 4:2 FTS	98.0		40 - 200	07/09/25 15:04	07/10/25 22:16	1
13C2 6:2 FTS	107		40 - 200	07/09/25 15:04	07/10/25 22:16	1
13C2 8:2 FTS	98.8		40 - 300	07/09/25 15:04	07/10/25 22:16	1
13C3 HFPO-DA	105		40 - 130	07/09/25 15:04	07/10/25 22:16	1
d7-N-MeFOSE-M	71.2		10 - 130	07/09/25 15:04	07/10/25 22:16	1
d9-N-EtFOSE-M	69.9		10 - 130	07/09/25 15:04	07/10/25 22:16	1
d5-NEtPFOSA	72.3		10 - 130	07/09/25 15:04	07/10/25 22:16	1
d3-NMePFOSA	72.9		10 - 130	07/09/25 15:04	07/10/25 22:16	1
13C2 PFDoA	93.2		10 - 130	07/09/25 15:04	07/10/25 22:16	1

Client Sample ID: DC320014-EB-2
Lab Sample ID: 410-230457-5

Date Collected: 06/25/25 11:07
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.87	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.47	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.63	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.71	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.63	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		07/09/25 15:04	07/10/25 22:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.79	ng/L		07/09/25 15:04	07/10/25 22:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.79	ng/L		07/09/25 15:04	07/10/25 22:30	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.79	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1

Client: Hart & Hickman, PC
Project/Site: Hollywood Cleaners (DC320014)

Job ID: 410-230457-1

Client Sample ID: DC320014-EB-2
Date Collected: 06/25/25 11:07
Date Received: 06/26/25 10:15

Lab Sample ID: 410-230457-5
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.9	2.0	ng/L		07/09/25 15:04	07/10/25 22:30	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.9	3.2	ng/L		07/09/25 15:04	07/10/25 22:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/09/25 15:04	07/10/25 22:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 22:30	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.79	ng/L		07/09/25 15:04	07/10/25 22:30	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.9	2.2	ng/L		07/09/25 15:04	07/10/25 22:30	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.9	2.0	ng/L		07/09/25 15:04	07/10/25 22:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*107*		*5 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C5 PFPeA	*128*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C5 PFHxA	*114*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C4 PFHpA	*114*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C8 PFOA	*104*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C9 PFNA	*107*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C6 PFDA	*104*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C7 PFUnA	*97.9*		*30 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C2 PFTeDA	*94.6*		*10 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C3 PFBS	*104*		*40 - 135*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C3 PFHxS	*109*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C8 PFOS	*111*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C8 FOSA	*96.1*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
d3-NMeFOSAA	*91.9*		*40 - 170*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
d5-NEtFOSAA	*87.3*		*25 - 135*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C2 4:2 FTS	*103*		*40 - 200*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C2 6:2 FTS	*110*		*40 - 200*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C2 8:2 FTS	*98.4*		*40 - 300*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C3 HFPO-DA	*106*		*40 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
d7-N-MeFOSE-M	*70.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
d9-N-EtFOSE-M	*71.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
d5-NEtPFOSA	*77.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*

Client Sample ID: DC320014-EB-2
Lab Sample ID: 410-230457-5

Date Collected: 06/25/25 11:07
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMePFOSA	*81.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*
13C2 PFDoA	*92.8*		*10 - 130*	*07/09/25 15:04*	*07/10/25 22:30*	*1*

Client Sample ID: DC320014-FB
Lab Sample ID: 410-230457-6

Date Collected: 06/25/25 11:10
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0	0.82	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.45	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.60	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.67	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.60	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.97	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.45	ng/L		07/09/25 15:04	07/10/25 23:11	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 23:11	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 23:11	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.5	1.9	ng/L		07/09/25 15:04	07/10/25 23:11	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.5	3.0	ng/L		07/09/25 15:04	07/10/25 23:11	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.0	ng/L		07/09/25 15:04	07/10/25 23:11	1

Client: Hart & Hickman, PC
Project/Site: Hollywood Cleaners (DC320014)

Job ID: 410-230457-1

Client Sample ID: DC320014-FB
Date Collected: 06/25/25 11:10
Date Received: 06/26/25 10:15

Lab Sample ID: 410-230457-6
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.37	ng/L		07/09/25 15:04	07/10/25 23:11	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.75	ng/L		07/09/25 15:04	07/10/25 23:11	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.5	2.1	ng/L		07/09/25 15:04	07/10/25 23:11	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.5	1.9	ng/L		07/09/25 15:04	07/10/25 23:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*113*		*5 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C5 PFPeA	*136*	*5+	*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C5 PFHxA	*113*	*cn	*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C4 PFHpA	*119*		*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C8 PFOA	*112*		*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C9 PFNA	*106*		*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C6 PFDA	*107*		*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C7 PFUnA	*92.8*		*30 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C2 PFTeDA	*83.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C3 PFBS	*108*		*40 - 135*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C3 PFHxS	*109*		*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C8 PFOS	*112*		*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C8 FOSA	*96.8*		*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
d3-NMeFOSAA	*95.3*		*40 - 170*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
d5-NEtFOSAA	*86.4*		*25 - 135*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C2 4:2 FTS	*103*		*40 - 200*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C2 6:2 FTS	*118*		*40 - 200*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C2 8:2 FTS	*102*		*40 - 300*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C3 HFPO-DA	*119*		*40 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
d7-N-MeFOSE-M	*52.9*		*10 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
d9-N-EtFOSE-M	*52.6*		*10 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
d5-NEtPFOSA	*68.0*		*10 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
d3-NMePFOSA	*74.1*		*10 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*
13C2 PFDoA	*102*		*10 - 130*	*07/09/25 15:04*	*07/10/25 23:11*	*1*

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230457-1
Project/Site: Hollywood Cleaners (DC320014)

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-230457-1	DC320014-MW-1	106	129	110	115	104	107	101	89.1
410-230457-2	DC320014-MW-10	99.5	114	106	101	95.2	103	94.3	86.5
410-230457-3	DC320014-DUP	108	113	97.7	96.7	99.6	109	104	98.4
410-230457-4	DC320014-EB-1	103	123	104	106	102	108	95.5	88.7
410-230457-5	DC320014-EB-2	107	128	114	114	104	107	104	97.9
410-230457-6	DC320014-FB	113	136 *5+	113 cn	119	112	106	107	92.8
LCS 410-668972/14-A	Lab Control Sample	105	114	99.2	92.4	92.9	97.1	89.5	85.1
LCSD 410-668972/15-A	Lab Control Sample Dup	105	126	107	101	90.2	99.6	84.7	68.3
LLCS 410-668972/16-A	Lab Control Sample	89.2	104	88.4	82.9	80.5	78.9	71.1	65.5
MB 410-668972/13-A	Method Blank	99.2	109	107	102	96.8	100	88.8	82.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-230457-1	DC320014-MW-1	84.1	105	106	107	92.6	94.0	87.1	99.6
410-230457-2	DC320014-MW-10	78.1	100	102	103	83.4	90.6	87.0	97.8
410-230457-3	DC320014-DUP	90.3	101	107	105	91.3	95.1	88.4	96.4
410-230457-4	DC320014-EB-1	87.3	103	102	101	88.6	88.8	80.3	98.0
410-230457-5	DC320014-EB-2	94.6	104	109	111	96.1	91.9	87.3	103
410-230457-6	DC320014-FB	83.3	108	109	112	96.8	95.3	86.4	103
LCS 410-668972/14-A	Lab Control Sample	69.7	91.9	93.0	93.5	87.4	80.4	82.0	96.1
LCSD 410-668972/15-A	Lab Control Sample Dup	57.7	93.5	90.9	92.6	83.3	76.1	67.9	104
LLCS 410-668972/16-A	Lab Control Sample	45.2	78.1	80.2	76.5	73.1	69.1	64.8	85.8
MB 410-668972/13-A	Method Blank	77.8	94.7	97.7	93.9	73.9	76.7	75.4	110

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-230457-1	DC320014-MW-1	111	101	110	71.6	67.5	70.7	75.7	93.8
410-230457-2	DC320014-MW-10	106	95.1	107	69.4	66.7	63.1	64.7	90.1
410-230457-3	DC320014-DUP	114	99.5	88.3	68.1	70.4	70.0	73.9	95.0
410-230457-4	DC320014-EB-1	107	98.8	105	71.2	69.9	72.3	72.9	93.2
410-230457-5	DC320014-EB-2	110	98.4	106	70.3	71.3	77.3	81.3	92.8
410-230457-6	DC320014-FB	118	102	119	52.9	52.6	68.0	74.1	102
LCS 410-668972/14-A	Lab Control Sample	93.8	88.9	87.8	70.8	70.5	63.2	65.6	87.2
LCSD 410-668972/15-A	Lab Control Sample Dup	105	88.4	106	52.8	48.9	56.0	59.5	66.2
LLCS 410-668972/16-A	Lab Control Sample	83.0	74.2	86.1	48.5	45.2	55.8	57.2	59.2
MB 410-668972/13-A	Method Blank	104	87.4	97.4	68.9	65.9	58.7	55.0	76.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230457-1
Project/Site: Hollywood Cleaners (DC320014)

C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/09/25 15:04	07/11/25 18:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/09/25 15:04	07/11/25 18:25	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.2*		*5 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C5 PFPeA	*109*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C5 PFHxA	*107*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C4 PFHpA	*102*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 PFOA	*96.8*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C9 PFNA	*100*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C6 PFDA	*88.8*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C7 PFUnA	*82.2*		*30 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 PFTeDA	*77.8*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 PFBS	*94.7*		*40 - 135*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 PFHxS	*97.7*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 PFOS	*93.9*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 FOSA	*73.9*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d3-NMeFOSAA	*76.7*		*40 - 170*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d5-NEtFOSAA	*75.4*		*25 - 135*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 4:2 FTS	*110*		*40 - 200*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 6:2 FTS	*104*		*40 - 200*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 8:2 FTS	*87.4*		*40 - 300*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 HFPO-DA	*97.4*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d7-N-MeFOSE-M	*68.9*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d9-N-EtFOSE-M	*65.9*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d5-NEtPFOSA	*58.7*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d3-NMePFOSA	*55.0*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 PFDoA	*76.1*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	67.4		ng/L		84	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	33.5		ng/L		84	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	32.5		ng/L		81	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	36.9		ng/L		92	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	34.1		ng/L		85	70 - 150
Perfluorononanoic acid (PFNA)	40.0	33.3		ng/L		83	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	37.5		ng/L		94	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	41.0		ng/L		103	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	37.8		ng/L		94	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	36.3		ng/L		91	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	35.8		ng/L		90	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.6		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	34.0		ng/L		90	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	27.5		ng/L		75	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.8		ng/L		89	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	30.9		ng/L		83	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	28.6		ng/L		74	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	30.0		ng/L		78	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	21.4		ng/L		55	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	66.3		ng/L		88	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	65.0		ng/L		85	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	66.0		ng/L		86	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	38.6		ng/L		97	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	38.3		ng/L		96	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.6		ng/L		94	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.8		ng/L		94	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.6		ng/L		92	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	194		ng/L		97	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	182		ng/L		91	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.2		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	39.0		ng/L		103	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.2		ng/L		95	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	34.7		ng/L		87	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.8		ng/L		82	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	28.4		ng/L		76	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	27.9		ng/L		74	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.7		ng/L		86	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	66.9		ng/L		84	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	152		ng/L		76	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	153		ng/L		76	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*114*		*40 - 130*
13C5 PFHxA	*99.2*		*40 - 130*
13C4 PFHpA	*92.4*		*40 - 130*
13C8 PFOA	*92.9*		*40 - 130*
13C9 PFNA	*97.1*		*40 - 130*
13C6 PFDA	*89.5*		*40 - 130*
13C7 PFUnA	*85.1*		*30 - 130*
13C2 PFTeDA	*69.7*		*10 - 130*
13C3 PFBS	*91.9*		*40 - 135*
13C3 PFHxS	*93.0*		*40 - 130*
13C8 PFOS	*93.5*		*40 - 130*
13C8 FOSA	*87.4*		*40 - 130*
d3-NMeFOSAA	*80.4*		*40 - 170*
d5-NEtFOSAA	*82.0*		*25 - 135*
13C2 4:2 FTS	*96.1*		*40 - 200*
13C2 6:2 FTS	*93.8*		*40 - 200*
13C2 8:2 FTS	*88.9*		*40 - 300*
13C3 HFPO-DA	*87.8*		*40 - 130*
d7-N-MeFOSE-M	*70.8*		*10 - 130*
d9-N-EtFOSE-M	*70.5*		*10 - 130*
d5-NEtPFOSA	*63.2*		*10 - 130*
d3-NMePFOSA	*65.6*		*10 - 130*
13C2 PFDoA	*87.2*		*10 - 130*

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	71.4		ng/L		89	70 - 140	6	30
Perfluoropentanoic acid (PFPeA)			40.0	33.7		ng/L		84	65 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	33.2		ng/L		83	70 - 145	2	30
Perfluoroheptanoic acid (PFHpA)			40.0	36.7		ng/L		92	70 - 150	0	30
Perfluorooctanoic acid (PFOA)			40.0	34.6		ng/L		87	70 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	34.2		ng/L		86	70 - 150	3	30
Perfluorodecanoic acid (PFDA)	40.0	36.9		ng/L		92	70 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	42.8		ng/L		107	70 - 145	4	30
Perfluorododecanoic acid (PFDoA)	40.0	41.7		ng/L		104	70 - 140	10	30
Perfluorotridecanoic acid (PFTrDA)	40.0	35.9		ng/L		90	65 - 140	1	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.3		ng/L		76	60 - 140	17	30
Perfluorobutanesulfonic acid (PFBS)	35.5	30.6		ng/L		86	60 - 145	0	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	36.7		ng/L		98	65 - 140	8	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	30.4		ng/L		83	65 - 145	10	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	34.6		ng/L		91	70 - 150	2	30
Perfluorooctanesulfonic acid (PFOS)	37.2	31.9		ng/L		86	55 - 150	3	30
Perfluorononanesulfonic acid (PFNS)	38.5	26.4		ng/L		69	65 - 145	8	30
Perfluorodecanesulfonic acid (PFDS)	38.6	25.3		ng/L		66	60 - 145	17	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	20.7		ng/L		53	50 - 145	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	65.4		ng/L		87	70 - 145	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	63.1		ng/L		83	65 - 155	3	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	65.4		ng/L		85	60 - 150	1	30
Perfluorooctanesulfonamide (PFOSA)	40.0	38.9		ng/L		97	70 - 145	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.4		ng/L		98	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	39.3		ng/L		98	65 - 145	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	34.3		ng/L		86	50 - 140	10	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.8		ng/L		92	70 - 145	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	192		ng/L		96	70 - 145	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	179		ng/L		89	70 - 135	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	28.5		ng/L		95	70 - 140	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.1		ng/L		93	65 - 145	11	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	39.5		ng/L		99	55 - 140	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	33.5		ng/L		84	60 - 150	4	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	39.1		ng/L		98	50 - 150	18	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	37.4	27.5		ng/L		73	70 - 155	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	37.8	24.0		ng/L		64	55 - 160	15	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	30.5		ng/L		85	70 - 140	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	69.8		ng/L		87	65 - 130	4	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	168		ng/L		84	70 - 135	10	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	139		ng/L		69	50 - 145	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*126*		*40 - 130*
13C5 PFHxA	*107*		*40 - 130*
13C4 PFHpA	*101*		*40 - 130*
13C8 PFOA	*90.2*		*40 - 130*
13C9 PFNA	*99.6*		*40 - 130*
13C6 PFDA	*84.7*		*40 - 130*
13C7 PFUnA	*68.3*		*30 - 130*
13C2 PFTeDA	*57.7*		*10 - 130*
13C3 PFBS	*93.5*		*40 - 135*
13C3 PFHxS	*90.9*		*40 - 130*
13C8 PFOS	*92.6*		*40 - 130*
13C8 FOSA	*83.3*		*40 - 130*
d3-NMeFOSAA	*76.1*		*40 - 170*
d5-NEtFOSAA	*67.9*		*25 - 135*
13C2 4:2 FTS	*104*		*40 - 200*
13C2 6:2 FTS	*105*		*40 - 200*
13C2 8:2 FTS	*88.4*		*40 - 300*
13C3 HFPO-DA	*106*		*40 - 130*
d7-N-MeFOSE-M	*52.8*		*10 - 130*
d9-N-EtFOSE-M	*48.9*		*10 - 130*
d5-NEtPFOSA	*56.0*		*10 - 130*
d3-NMePFOSA	*59.5*		*10 - 130*
13C2 PFDoA	*66.2*		*10 - 130*

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	6.82		ng/L		85	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	2.97		ng/L		74	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	3.46		ng/L		87	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.74		ng/L		94	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.44		ng/L		111	70 - 150
Perfluorononanoic acid (PFNA)	4.00	5.42		ng/L		135	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.82		ng/L		120	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.65		ng/L		91	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.86		ng/L		97	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.73		ng/L		93	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.97		ng/L		99	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.99		ng/L		84	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.33		ng/L		89	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	2.85		ng/L		78	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.28		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.37		ng/L		91	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	2.51		ng/L		65	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	2.71		ng/L		70	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.03		ng/L		52	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.89		ng/L		92	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	6.37		ng/L		84	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	6.56		ng/L		85	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.55	I	ng/L		89	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.93		ng/L		98	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.12		ng/L		103	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.22		ng/L		80	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.54		ng/L		88	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.2		ng/L		106	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.3		ng/L		97	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.73		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.16		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.76		ng/L		94	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.20		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.61		ng/L		90	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	2.57	*-	ng/L		69	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.42		ng/L		64	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	2.63		ng/L		74	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.60		ng/L		83	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	15.7		ng/L		79	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	13.7		ng/L		68	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*89.2*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*88.4*		*40 - 130*
13C4 PFHpA	*82.9*		*40 - 130*
13C8 PFOA	*80.5*		*40 - 130*
13C9 PFNA	*78.9*		*40 - 130*
13C6 PFDA	*71.1*		*40 - 130*
13C7 PFUnA	*65.5*		*30 - 130*
13C2 PFTeDA	*45.2*		*10 - 130*
13C3 PFBS	*78.1*		*40 - 135*
13C3 PFHxS	*80.2*		*40 - 130*
13C8 PFOS	*76.5*		*40 - 130*
13C8 FOSA	*73.1*		*40 - 130*
d3-NMeFOSAA	*69.1*		*40 - 170*
d5-NEtFOSAA	*64.8*		*25 - 135*
13C2 4:2 FTS	*85.8*		*40 - 200*
13C2 6:2 FTS	*83.0*		*40 - 200*
13C2 8:2 FTS	*74.2*		*40 - 300*
13C3 HFPO-DA	*86.1*		*40 - 130*
d7-N-MeFOSE-M	*48.5*		*10 - 130*
d9-N-EtFOSE-M	*45.2*		*10 - 130*
d5-NEtPFOSA	*55.8*		*10 - 130*
d3-NMePFOSA	*57.2*		*10 - 130*
13C2 PFDoA	*59.2*		*10 - 130*

LCMS

Prep Batch: 668972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230457-1	DC320014-MW-1	Total/NA	Water	1633A	
410-230457-2	DC320014-MW-10	Total/NA	Water	1633A	
410-230457-3	DC320014-DUP	Total/NA	Water	1633A	
410-230457-4	DC320014-EB-1	Total/NA	Water	1633A	
410-230457-5	DC320014-EB-2	Total/NA	Water	1633A	
410-230457-6	DC320014-FB	Total/NA	Water	1633A	
MB 410-668972/13-A	Method Blank	Total/NA	Water	1633A	
LCS 410-668972/14-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-668972/15-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-668972/16-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 669314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230457-1	DC320014-MW-1	Total/NA	Water	1633A	668972
410-230457-2	DC320014-MW-10	Total/NA	Water	1633A	668972
410-230457-3	DC320014-DUP	Total/NA	Water	1633A	668972
410-230457-4	DC320014-EB-1	Total/NA	Water	1633A	668972
410-230457-5	DC320014-EB-2	Total/NA	Water	1633A	668972
410-230457-6	DC320014-FB	Total/NA	Water	1633A	668972
LCS 410-668972/14-A	Lab Control Sample	Total/NA	Water	1633A	668972
LCSD 410-668972/15-A	Lab Control Sample Dup	Total/NA	Water	1633A	668972
LLCS 410-668972/16-A	Lab Control Sample	Total/NA	Water	1633A	668972

Analysis Batch: 670041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-668972/13-A	Method Blank	Total/NA	Water	1633A	668972

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: Hollywood Cleaners (DC320014)

Job ID: 410-230457-1

Client Sample ID: DC320014-MW-1
Lab Sample ID: 410-230457-1
Date Collected: 06/25/25 09:17
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 21:36

Client Sample ID: DC320014-MW-10
Lab Sample ID: 410-230457-2
Date Collected: 06/25/25 10:52
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 21:49

Client Sample ID: DC320014-DUP
Lab Sample ID: 410-230457-3
Date Collected: 06/25/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 22:03

Client Sample ID: DC320014-EB-1
Lab Sample ID: 410-230457-4
Date Collected: 06/25/25 11:05
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 22:16

Client Sample ID: DC320014-EB-2
Lab Sample ID: 410-230457-5
Date Collected: 06/25/25 11:07
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 22:30

Client Sample ID: DC320014-FB
Lab Sample ID: 410-230457-6
Date Collected: 06/25/25 11:10
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 23:11

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230457-1
Project/Site: Hollywood Cleaners (DC320014)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Client: Hart & Hickman, PC
Job ID: 410-230457-1
Project/Site: Hollywood Cleaners (DC320014)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-230457-1
Project/Site: Hollywood Cleaners (DC320014)

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

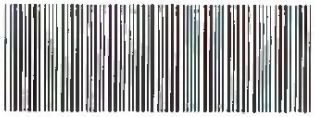
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: Hollywood Cleaners (DC320014)

Job ID: 410-230457-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-230457-1	DC320014-MW-1	Water	06/25/25 09:17	06/26/25 10:15
410-230457-2	DC320014-MW-10	Water	06/25/25 10:52	06/26/25 10:15
410-230457-3	DC320014-DUP	Water	06/25/25 00:00	06/26/25 10:15
410-230457-4	DC320014-EB-1	Water	06/25/25 11:05	06/26/25 10:15
410-230457-5	DC320014-EB-2	Water	06/25/25 11:07	06/26/25 10:15
410-230457-6	DC320014-FB	Water	06/25/25 11:10	06/26/25 10:15



410-230457 Chain of Custody

ironme

Chain of Custody Record

eurofins | Environment Testing

	Sampler: NWS & RES	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159679-44154.1
Mandy Klaben	Phone: 919-847-4241	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID	Analysis Requested		Job #: DSO, PFAS
Address: 3921 Sunset Ridge Rd Suite 301	Due Date Requested:			Preservation Codes: N - None
City: Raleigh	TAT Requested (days): H+H Standard (10 days)			
State, Zip: NC, 27607	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DSO.PFAS			
Email: mklaben@harthickman.com	WO #:			Other:
Project Name: Hollywood Cleaners (DC320014)	Project #: 41025876			
Site: DSO.PFAS	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS	1633 Final	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N		X	
DC320014-MW-1	6/25/25	0917	G	Water	N	N	X	X		*Please report J
DC320014-MW-10	6/25/25	1052	G	Water	N	N	X	X		Flags & report
DC320014-DUP	6/25/25	—	G	Water	N	N		X		non-detects as <MDL
DC320014-EB-1	6/25/25	1105	G	Water	N	N		X		*EDD formats: H+H,
DC320014-EB-2	6/25/25	1107	G	Water	N	N		X		DSCA, NCDEQ
DC320014-FB	6/25/25	1110	G	Water	N	N		X		*Hold TOP analysis
										until further
										notice*

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Rachel Schmidt	Date/Time: 6/25/25 1220	Company: H+H	Received by: Brent Kinder	Date/Time: 6/25/25 1453	Company: Eurofins		
Relinquished by: Brent Kinder	Date/Time: 6/25/25 1645	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/26/25 1011	Company: ELLET		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 23.9-4.8 C 3.4-4.8

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-230457-1

Login Number: 230457
List Number: 1
Creator: Leakway, Christian

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

IREDELL LAUNDRY
DC490007

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 12/30/2025 11:12:08 AM Revision 3

JOB DESCRIPTION

Iredell Laundry Company (DC490007)

JOB NUMBER

410-229649-3

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
12/30/2025 11:12:08 AM
Revision 3

Authorized for release by
Joshua Burdelik, IT Support
Joshua.Burdelik@et.eurofinsus.com
Designee for
David Barnhart, Senior Project Manager
David.Barnhart@et.eurofinsus.com
(717)656-2300

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-229649-3

REVISION

The report being provided is a revision of the original report sent on 8/8/2025. The report (revision 3) is being revised due to additional changes needed for the DS0.PFAS lab reports and EDDs.

Report revision history
Revision 2 - 12/9/2025 - Reason - additional changes needed for the DS0.PFAS lab reports and EDDs.
Revision 1 - 11/12/2025 - Reason - client requesting DC360006-WW-PRE, DC360006-WW-POST, DC360006-DUP-2, DC360006-MIST-PRE, DC360006-DET and associated lab QA/QC samples be removed from this report.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 6/26/2025 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

PFAS
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Client Sample ID: DC490007-MW-3 — Lab Sample ID: 410-229649-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.2		3.0	0.84	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	5.5		1.5	0.46	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	5.3		1.5	0.38	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.5	0.61	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	1.7		1.5	0.68	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.1		1.5	0.38	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.4	J	1.5	0.38	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.3		1.5	0.61	ng/L	1		1633A	Total/NA

Client Sample ID: DC490007-MW-1 — Lab Sample ID: 410-229649-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.0	J	3.1	0.84	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	2.1		1.5	0.46	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	1.7		1.5	0.38	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.96	J	1.5	0.38	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.6		1.5	0.61	ng/L	1		1633A	Total/NA

Client Sample ID: DC490007-DUP-1 — Lab Sample ID: 410-229649-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.0	J	3.1	0.85	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	1.9		1.5	0.46	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	1.7		1.5	0.39	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.86	J	1.5	0.39	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.6		1.5	0.62	ng/L	1		1633A	Total/NA

Client Sample ID: DC490007-FB — Lab Sample ID: 410-229649-14

No Detections.

Client Sample ID: DC490007-EB — Lab Sample ID: 410-229649-15

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Client Sample ID: DC490007-MW-3
Lab Sample ID: 410-229649-11
Date Collected: 06/24/25 13:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.2**		3.0	0.84	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluoropentanoic acid (PFPeA)	**5.5**		1.5	0.46	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorohexanoic acid (PFHxA)	**5.3**		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluoroheptanoic acid (PFHpA)	**1.4**	**J**	1.5	0.61	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorooctanoic acid (PFOA)	**1.7**		1.5	0.68	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorobutanesulfonic acid (PFBS)	**3.1**		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluoropentanesulfonic acid (PFPeS)	**1.4**	**J**	1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorohexanesulfonic acid (PFHxS)	**3.3**		1.5	0.61	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.99	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.46	ng/L		07/04/25 06:18	07/08/25 12:31	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.76	ng/L		07/04/25 06:18	07/08/25 12:31	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.76	ng/L		07/04/25 06:18	07/08/25 12:31	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.76	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.6	1.9	ng/L		07/04/25 06:18	07/08/25 12:31	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.6	3.0	ng/L		07/04/25 06:18	07/08/25 12:31	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/04/25 06:18	07/08/25 12:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1

Client Sample ID: DC490007-MW-3
Lab Sample ID: 410-229649-11
Date Collected: 06/24/25 13:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:31	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.76	ng/L		07/04/25 06:18	07/08/25 12:31	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.6	2.1	ng/L		07/04/25 06:18	07/08/25 12:31	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.6	1.9	ng/L		07/04/25 06:18	07/08/25 12:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*5 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C5 PFPeA	*99.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C5 PFHxA	*94.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C4 PFHpA	*99.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C8 PFOA	*93.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C9 PFNA	*88.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C6 PFDA	*98.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C7 PFUnA	*91.8*		*30 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C2 PFTeDA	*84.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C3 PFBS	*94.0*		*40 - 135*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C3 PFHxS	*92.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C8 PFOS	*96.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C8 FOSA	*81.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
d3-NMeFOSAA	*82.3*		*40 - 170*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
d5-NEtFOSAA	*79.4*		*25 - 135*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C2 4:2 FTS	*88.8*		*40 - 200*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C2 6:2 FTS	*93.5*		*40 - 200*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C2 8:2 FTS	*83.9*		*40 - 300*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C3 HFPO-DA	*89.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
d7-N-MeFOSE-M	*55.8*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
d9-N-EtFOSE-M	*55.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
d5-NEtPFOSA	*74.5*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
d3-NMePFOSA	*75.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*
13C2 PFDoA	*90.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:31*	*1*

Client Sample ID: DC490007-MW-1
Lab Sample ID: 410-229649-12
Date Collected: 06/24/25 15:25
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.0**	**J**	3.1	0.84	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluoropentanoic acid (PFPeA)	**2.1**		1.5	0.46	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorohexanoic acid (PFHxA)	**1.7**		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.61	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.69	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1

Client Sample ID: DC490007-MW-1
Lab Sample ID: 410-229649-12
Date Collected: 06/24/25 15:25
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorobutanesulfonic acid (PFBS)	**0.96**	**J**	1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorohexanesulfonic acid (PFHxS)	**1.6**		1.5	0.61	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	1.0	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.46	ng/L		07/04/25 06:18	07/08/25 12:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 12:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 12:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.7	1.9	ng/L		07/04/25 06:18	07/08/25 12:58	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.7	3.1	ng/L		07/04/25 06:18	07/08/25 12:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/04/25 06:18	07/08/25 12:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.38	ng/L		07/04/25 06:18	07/08/25 12:58	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 12:58	1

Client Sample ID: DC490007-MW-1
Lab Sample ID: 410-229649-12
Date Collected: 06/24/25 15:25
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.7	2.1	ng/L		07/04/25 06:18	07/08/25 12:58	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.7	1.9	ng/L		07/04/25 06:18	07/08/25 12:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97.9*		*5 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C5 PFPeA	*95.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C5 PFHxA	*97.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C4 PFHpA	*85.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C8 PFOA	*91.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C9 PFNA	*95.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C6 PFDA	*87.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C7 PFUnA	*89.5*		*30 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C2 PFTeDA	*79.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C3 PFBS	*93.2*		*40 - 135*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C3 PFHxS	*93.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C8 PFOS	*96.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C8 FOSA	*79.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
d3-NMeFOSAA	*85.5*		*40 - 170*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
d5-NEtFOSAA	*81.5*		*25 - 135*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C2 4:2 FTS	*88.9*		*40 - 200*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C2 6:2 FTS	*93.2*		*40 - 200*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C2 8:2 FTS	*90.6*		*40 - 300*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C3 HFPO-DA	*88.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
d7-N-MeFOSE-M	*66.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
d9-N-EtFOSE-M	*69.8*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
d5-NEtPFOSA	*75.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
d3-NMePFOSA	*74.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*
13C2 PFDoA	*88.9*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:58*	*1*

Client Sample ID: DC490007-DUP-1
Lab Sample ID: 410-229649-13
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.0**	**J**	3.1	0.85	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluoropentanoic acid (PFPeA)	**1.9**		1.5	0.46	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorohexanoic acid (PFHxA)	**1.7**		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.62	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.70	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorobutanesulfonic acid (PFBS)	**0.86**	**J**	1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1

Client Sample ID: DC490007-DUP-1
Lab Sample ID: 410-229649-13
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**1.6**		1.5	0.62	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	1.0	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.46	ng/L		07/04/25 06:18	07/08/25 13:39	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 13:39	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 13:39	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.7	1.9	ng/L		07/04/25 06:18	07/08/25 13:39	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.7	3.1	ng/L		07/04/25 06:18	07/08/25 13:39	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/04/25 06:18	07/08/25 13:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.39	ng/L		07/04/25 06:18	07/08/25 13:39	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.77	ng/L		07/04/25 06:18	07/08/25 13:39	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.7	2.2	ng/L		07/04/25 06:18	07/08/25 13:39	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.7	1.9	ng/L		07/04/25 06:18	07/08/25 13:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*106*		*5 - 130*	*07/04/25 06:18*	*07/08/25 13:39*	*1*
13C5 PFPeA	*105*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:39*	*1*
13C5 PFHxA	*107*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:39*	*1*
13C4 PFHpA	*98.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:39*	*1*

Client Sample ID: DC490007-DUP-1
Lab Sample ID: 410-229649-13

Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOA	100		40 - 130	07/04/25 06:18	07/08/25 13:39	1
13C9 PFNA	97.0		40 - 130	07/04/25 06:18	07/08/25 13:39	1
13C6 PFDA	97.1		40 - 130	07/04/25 06:18	07/08/25 13:39	1
13C7 PFUnA	100		30 - 130	07/04/25 06:18	07/08/25 13:39	1
13C2 PFTeDA	88.7		10 - 130	07/04/25 06:18	07/08/25 13:39	1
13C3 PFBS	102		40 - 135	07/04/25 06:18	07/08/25 13:39	1
13C3 PFHxS	102		40 - 130	07/04/25 06:18	07/08/25 13:39	1
13C8 PFOS	103		40 - 130	07/04/25 06:18	07/08/25 13:39	1
13C8 FOSA	90.3		40 - 130	07/04/25 06:18	07/08/25 13:39	1
d3-NMeFOSAA	95.4		40 - 170	07/04/25 06:18	07/08/25 13:39	1
d5-NEtFOSAA	90.9		25 - 135	07/04/25 06:18	07/08/25 13:39	1
13C2 4:2 FTS	95.1		40 - 200	07/04/25 06:18	07/08/25 13:39	1
13C2 6:2 FTS	104		40 - 200	07/04/25 06:18	07/08/25 13:39	1
13C2 8:2 FTS	98.9		40 - 300	07/04/25 06:18	07/08/25 13:39	1
13C3 HFPO-DA	102		40 - 130	07/04/25 06:18	07/08/25 13:39	1
d7-N-MeFOSE-M	66.2		10 - 130	07/04/25 06:18	07/08/25 13:39	1
d9-N-EtFOSE-M	68.0		10 - 130	07/04/25 06:18	07/08/25 13:39	1
d5-NEtPFOSA	84.0		10 - 130	07/04/25 06:18	07/08/25 13:39	1
d3-NMePFOSA	85.7		10 - 130	07/04/25 06:18	07/08/25 13:39	1
13C2 PFDoA	94.3		10 - 130	07/04/25 06:18	07/08/25 13:39	1

Client Sample ID: DC490007-FB
Lab Sample ID: 410-229649-14

Date Collected: 06/24/25 13:10
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1	0.86	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.47	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.62	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.70	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.62	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		07/04/25 06:18	07/08/25 13:52	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 13:52	1

Client Sample ID: DC490007-FB
Lab Sample ID: 410-229649-14
Date Collected: 06/24/25 13:10
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 13:52	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	1.9	ng/L		07/04/25 06:18	07/08/25 13:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	3.1	ng/L		07/04/25 06:18	07/08/25 13:52	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/04/25 06:18	07/08/25 13:52	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		07/04/25 06:18	07/08/25 13:52	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.78	ng/L		07/04/25 06:18	07/08/25 13:52	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.8	2.2	ng/L		07/04/25 06:18	07/08/25 13:52	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	1.9	ng/L		07/04/25 06:18	07/08/25 13:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*107*		*5 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C5 PFPeA	*105*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C5 PFHxA	*102*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C4 PFHpA	*104*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C8 PFOA	*98.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C9 PFNA	*100*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C6 PFDA	*103*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C7 PFUnA	*103*		*30 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C2 PFTeDA	*95.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C3 PFBS	*105*		*40 - 135*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C3 PFHxS	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C8 PFOS	*104*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
13C8 FOSA	*93.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 13:52*	*1*
d3-NMeFOSAA	*95.1*		*40 - 170*	*07/04/25 06:18*	*07/08/25 13:52*	*1*

Client Sample ID: DC490007-FB
Lab Sample ID: 410-229649-14
Date Collected: 06/24/25 13:10
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	92.6		25 - 135	07/04/25 06:18	07/08/25 13:52	1
13C2 4:2 FTS	98.0		40 - 200	07/04/25 06:18	07/08/25 13:52	1
13C2 6:2 FTS	94.2		40 - 200	07/04/25 06:18	07/08/25 13:52	1
13C2 8:2 FTS	94.7		40 - 300	07/04/25 06:18	07/08/25 13:52	1
13C3 HFPO-DA	107		40 - 130	07/04/25 06:18	07/08/25 13:52	1
d7-N-MeFOSE-M	82.9		10 - 130	07/04/25 06:18	07/08/25 13:52	1
d9-N-EtFOSE-M	81.3		10 - 130	07/04/25 06:18	07/08/25 13:52	1
d5-NEtPFOSA	85.9		10 - 130	07/04/25 06:18	07/08/25 13:52	1
d3-NMePFOSA	88.2		10 - 130	07/04/25 06:18	07/08/25 13:52	1
13C2 PFDoA	103		10 - 130	07/04/25 06:18	07/08/25 13:52	1

Client Sample ID: DC490007-EB
Lab Sample ID: 410-229649-15
Date Collected: 06/24/25 13:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.3	0.91	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.49	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.66	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.74	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.66	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.1	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.49	ng/L		07/04/25 06:18	07/08/25 14:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	0.82	ng/L		07/04/25 06:18	07/08/25 14:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	0.82	ng/L		07/04/25 06:18	07/08/25 14:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	0.82	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Client Sample ID: DC490007-EB
Lab Sample ID: 410-229649-15
Date Collected: 06/24/25 13:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.2	2.1	ng/L		07/04/25 06:18	07/08/25 14:06	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.2	3.3	ng/L		07/04/25 06:18	07/08/25 14:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.2	ng/L		07/04/25 06:18	07/08/25 14:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 14:06	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	0.82	ng/L		07/04/25 06:18	07/08/25 14:06	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.2	2.3	ng/L		07/04/25 06:18	07/08/25 14:06	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.2	2.1	ng/L		07/04/25 06:18	07/08/25 14:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*5 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C5 PFPeA	*104*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C5 PFHxA	*97.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C4 PFHpA	*97.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C8 PFOA	*96.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C9 PFNA	*110*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C6 PFDA	*107*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C7 PFUnA	*98.2*		*30 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C2 PFTeDA	*99.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C3 PFBS	*94.2*		*40 - 135*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C3 PFHxS	*98.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C8 PFOS	*98.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C8 FOSA	*90.0*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
d3-NMeFOSAA	*87.6*		*40 - 170*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
d5-NEtFOSAA	*94.5*		*25 - 135*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C2 4:2 FTS	*96.8*		*40 - 200*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C2 6:2 FTS	*102*		*40 - 200*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C2 8:2 FTS	*94.4*		*40 - 300*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C3 HFPO-DA	*97.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
d7-N-MeFOSE-M	*83.1*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
d9-N-EtFOSE-M	*80.9*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
d5-NEtPFOSA	*84.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
d3-NMePFOSA	*86.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*
13C2 PFDoA	*94.1*		*10 - 130*	*07/04/25 06:18*	*07/08/25 14:06*	*1*

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)
410-229649-11	DC490007-MW-3	106	99.1	94.2	99.1	93.5	88.8	98.2	91.8
410-229649-12	DC490007-MW-1	97.9	95.9	97.3	85.4	91.6	95.4	87.5	89.5
410-229649-13	DC490007-DUP-1	106	105	107	98.9	100	97.0	97.1	100
410-229649-14	DC490007-FB	107	105	102	104	98.3	100	103	103
410-229649-15	DC490007-EB	101	104	97.7	97.3	96.6	110	107	98.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(40-135)	(40-130)	(40-130)	(40-130)	(40-170)	(25-135)	(40-200)
410-229649-11	DC490007-MW-3	84.2	94.0	92.0	96.0	81.4	82.3	79.4	88.8
410-229649-12	DC490007-MW-1	79.4	93.2	93.1	96.2	79.0	85.5	81.5	88.9
410-229649-13	DC490007-DUP-1	88.7	102	102	103	90.3	95.4	90.9	95.1
410-229649-14	DC490007-FB	95.2	105	101	104	93.3	95.1	92.6	98.0
410-229649-15	DC490007-EB	99.6	94.2	98.3	98.8	90.0	87.6	94.5	96.8

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoA
Lab Sample ID	Client Sample ID	(40-200)	(40-300)	(40-130)	(10-130)	(10-130)	(10-130)	(10-130)	(10-130)
410-229649-11	DC490007-MW-3	93.5	83.9	89.6	55.8	55.3	74.5	75.2	90.7
410-229649-12	DC490007-MW-1	93.2	90.6	88.9	66.3	69.8	75.0	74.0	88.9
410-229649-13	DC490007-DUP-1	104	98.9	102	66.2	68.0	84.0	85.7	94.3
410-229649-14	DC490007-FB	94.2	94.7	107	82.9	81.3	85.9	88.2	103
410-229649-15	DC490007-EB	102	94.4	97.5	83.1	80.9	84.4	86.6	94.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

QC Association Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

LCMS

Prep Batch: 667147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-11	DC490007-MW-3	Total/NA	Water	1633A	
410-229649-12	DC490007-MW-1	Total/NA	Water	1633A	
410-229649-13	DC490007-DUP-1	Total/NA	Water	1633A	
410-229649-14	DC490007-FB	Total/NA	Water	1633A	
410-229649-15	DC490007-EB	Total/NA	Water	1633A	

Analysis Batch: 668033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-11	DC490007-MW-3	Total/NA	Water	1633A	667147
410-229649-12	DC490007-MW-1	Total/NA	Water	1633A	667147
410-229649-13	DC490007-DUP-1	Total/NA	Water	1633A	667147
410-229649-14	DC490007-FB	Total/NA	Water	1633A	667147
410-229649-15	DC490007-EB	Total/NA	Water	1633A	667147

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Client Sample ID: DC490007-MW-3
Lab Sample ID: 410-229649-11
Date Collected: 06/24/25 13:15
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 12:31

Client Sample ID: DC490007-MW-1
Lab Sample ID: 410-229649-12
Date Collected: 06/24/25 15:25
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 12:58

Client Sample ID: DC490007-DUP-1
Lab Sample ID: 410-229649-13
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 13:39

Client Sample ID: DC490007-FB
Lab Sample ID: 410-229649-14
Date Collected: 06/24/25 13:10
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 13:52

Client Sample ID: DC490007-EB
Lab Sample ID: 410-229649-15
Date Collected: 06/24/25 13:15
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 14:06

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	09-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-3
Project/Site: Iredell Laundry Company (DC490007)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-229649-11	DC490007-MW-3	Water	06/24/25 13:15	06/26/25 10:15	North Carolina
410-229649-12	DC490007-MW-1	Water	06/24/25 15:25	06/26/25 10:15	North Carolina
410-229649-13	DC490007-DUP-1	Water	06/24/25 00:00	06/26/25 10:15	North Carolina
410-229649-14	DC490007-FB	Water	06/24/25 13:10	06/26/25 10:15	North Carolina
410-229649-15	DC490007-EB	Water	06/24/25 13:15	06/26/25 10:15	North Carolina

onme

Chain of Custody Record

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410-229649 Chain of Custody

Sam Martin	Sampler: Gavin De Mars	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):
	Phone: (951) 595-2256	E-Mail: kelly.gallagher@et eurofinsus.com	State of Origin: NC
Company: Hart & Hickman, PC	PWSID:	Analysis Requested	Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:		Preservation Codes: N - None
City: Charlotte	TAT Requested (days): Standard (H&H)(10-day)		
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No		
Phone: 704-887-4608(Tel)	PO #: DS0 PFAS		
Email: smartin@harthickman.com	WO #:		
Project Name: One Hour Martinizing (DC360006)	Project #: 41025876		Other:
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - List of 40 based on EPA method	[redacted]_TOPS (Post) 537	537 Mod	TOPS (Post) 1633	Total Number of containers	Special Instructions/Note:
Preservation Code:					N	N						
—	—	—	G	Water	N	N					—	* Please report J flags
DC360006 - DET	6/18/25	16:10		~~Water~~ Solid				✓	✓		3	* report non-detects
DC360006 - WW - PRE	6/24/25	09:15		Water				✓	✓		3	as < MDLs
DC360006 - WW - POST	↓	09:20		Water				✓	✓		3	* EDD formats: H&H,
DC360006 - MIST - PRE	↓	09:25		Water				✓	✓		3	DSCA, NCDEQ
DC360006 - MW - 8	6/18/25	11:45		Water				✓		✓	3	
DC360006 - MW - 25	↓	12:45		Water				✓		✓	3	
DC360006 - FB	↓	13:45		Water			✓				2	
DC360006 - EB	↓	13:45	↓	Water	↓	↓	✓				2	
DC360006 - DUP - 1	↓	—	↓	Water			✓			✓	2	
DC360006 - DUP - 2	6/24/25	—	↓	Water							2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: (II) III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: G De Mars	Date/Time: 6/24/25 17:30	Company: H&H	Received by:	Date/Time: 6/25/25 1115	Company
Relinquished by:	Date/Time: 6/25/25 1700	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/26/25 10:15	Company: ET
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	R: 4.3	C: 4.1

Ver: 10/10/2024

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

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Client Information	Sampler: Gavin De Mars	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159583-44128.1
Client Contact: Sam Martin	Phone: (951) 595-2256	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			Preservation Codes: N - None
City: Charlotte	TAT Requested (days): H+H Standard (10-day)			
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DS0 PFAS			
Email: smartin@harthickman.com	WO #			
Project Name: Iredell Laundry (DC490007)	Project #: 41025876			Other:
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS (Post)	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
~~MW-3~~ GRD ~~MW-1~~ DC490007-MW-3	6/24/25	1315	G	Water	N	N	✓	✓	3	☆ Please report J flags + report non-detects as <MDLs
DC490007-MW-1		1525		Water			✓	✓	3	
DC490007-DUP-1		—		Water				✓	2	
DC490007-FB		1310		Water				✓	2	
DC490007-EB		1315		Water				✓	2	☆ EDD formats: H+H, DSCA, NCDEQ
				Water						☆ All TOP analyses to be on hold pending 1633 results.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	G De Mars	6/24/25 17:30	H+H		6/25/25 1115	
2		6-25-25 1700				
3					6/26/25 10:15	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 4.3 C: 4.1

NJ

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-229649-3

Login Number: 229649
List Number: 1
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

NS FARRINGTON

DC340039

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/24/2025 11:42:06 AM

JOB DESCRIPTION

NS Farrington (DC340039)

JOB NUMBER

410-230683-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/24/2025 11:42:06 AM

Authorized for release by
Elizabeth Anthony, Project Mgmt. Assistant
elizabeth.anthony@et.eurofinsus.com
Designee for
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-230683-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/3/2025 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.6°C and 5.3°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

PFAS
Method 1633A: Target analyte Perfluorododecanesulfonic acid (PFDoS) has a relative percentage deviation (%RPD) outside of the QC acceptance limit in the Laboratory Control Spike Duplicate associated with samples DC340039-MW-2 (410-230683-2), DC340039-DUP-1 (410-230683-3), DC340039-FB (410-230683-4) and DC340039-EB (410-230683-5) . Since the individual recoveries meet acceptance limits and the analyte is not detected, the data is reported.

Method 1633A: Analyte Perfluorooctanesulfonic acid (PFOS) was marked as non-detect for sample DC340039-MW-1 (410-230683-1) due to a detection below RL and failing ion ratio.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Client Sample ID: DC340039-MW-1 — Lab Sample ID: 410-230683-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.6	J	3.3	0.91	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	1.9		1.7	0.50	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.7	0.41	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.90	J	1.7	0.66	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.3		1.7	0.75	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.2	J	1.7	0.41	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.7		1.7	0.66	ng/L	1		1633A	Total/NA

Client Sample ID: DC340039-MW-2 — Lab Sample ID: 410-230683-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.8	J	3.3	0.91	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	1.6	J	1.7	0.50	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	1.9		1.7	0.41	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.1	J	1.7	0.66	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.5		1.7	0.75	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.2	J	1.7	0.41	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.9		1.7	0.66	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		1.7	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC340039-DUP-1 — Lab Sample ID: 410-230683-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.8	J	3.3	0.90	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	1.6		1.6	0.49	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.6	0.41	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.1	J	1.6	0.65	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.4		1.6	0.74	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.2	J	1.6	0.41	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.1		1.6	0.65	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.8		1.6	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC340039-FB — Lab Sample ID: 410-230683-4

No Detections.

Client Sample ID: DC340039-EB — Lab Sample ID: 410-230683-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Client Sample ID: DC340039-MW-1
Date Collected: 07/02/25 10:30
Date Received: 07/03/25 10:15

Lab Sample ID: 410-230683-1
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.6**	**J**	3.3	0.91	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluoropentanoic acid (PFPeA)	**1.9**		1.7	0.50	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorohexanoic acid (PFHxA)	**2.2**		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluoroheptanoic acid (PFHpA)	**0.90**	**J**	1.7	0.66	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorooctanoic acid (PFOA)	**2.3**		1.7	0.75	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorobutanesulfonic acid (PFBS)	**1.2**	**J**	1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorohexanesulfonic acid (PFHxS)	**1.7**		1.7	0.66	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1.2	1.2	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1	1.7	0.50	ng/L		07/14/25 06:25	07/15/25 07:03	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	0.83	ng/L		07/14/25 06:25	07/15/25 07:03	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	0.83	ng/L		07/14/25 06:25	07/15/25 07:03	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	0.83	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.3	2.1	ng/L		07/14/25 06:25	07/15/25 07:03	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.3	3.3	ng/L		07/14/25 06:25	07/15/25 07:03	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/14/25 06:25	07/15/25 07:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1

Client Sample ID: DC340039-MW-1

Lab Sample ID: 410-230683-1
Date Collected: 07/02/25 10:30
Matrix: Water
Date Received: 07/03/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:03	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	0.83	ng/L		07/14/25 06:25	07/15/25 07:03	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.3	2.3	ng/L		07/14/25 06:25	07/15/25 07:03	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.3	2.1	ng/L		07/14/25 06:25	07/15/25 07:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91.3*		*5 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C5 PFPeA	*92.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C5 PFHxA	*94.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C4 PFHpA	*85.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C8 PFOA	*87.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C9 PFNA	*91.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C6 PFDA	*85.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C7 PFUnA	*82.7*		*30 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C2 PFTeDA	*83.6*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C3 PFBS	*94.8*		*40 - 135*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C3 PFHxS	*89.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C8 PFOS	*96.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C8 FOSA	*93.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
d3-NMeFOSAA	*57.1*		*40 - 170*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
d5-NEtFOSAA	*67.6*		*25 - 135*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C2 4:2 FTS	*80.2*		*40 - 200*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C2 6:2 FTS	*78.1*		*40 - 200*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C2 8:2 FTS	*76.2*		*40 - 300*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C3 HFPO-DA	*76.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
d7-N-MeFOSE-M	*75.0*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
d9-N-EtFOSE-M	*77.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
d5-NEtPFOSA	*87.7*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
d3-NMePFOSA	*76.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*
13C2 PFDoA	*73.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:03*	*1*

Client Sample ID: DC340039-MW-2

Lab Sample ID: 410-230683-2
Date Collected: 07/02/25 11:15
Matrix: Water
Date Received: 07/03/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.8**	**J**	3.3	0.91	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluoropentanoic acid (PFPeA)	**1.6**	**J**	1.7	0.50	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorohexanoic acid (PFHxA)	**1.9**		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluoroheptanoic acid (PFHpA)	**1.1**	**J**	1.7	0.66	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorooctanoic acid (PFOA)	**2.5**		1.7	0.75	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1

Client Sample ID: DC340039-MW-2
Date Collected: 07/02/25 11:15
Date Received: 07/03/25 10:15

Lab Sample ID: 410-230683-2
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorobutanesulfonic acid (PFBS)	**1.2**	**J**	1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorohexanesulfonic acid (PFHxS)	**1.9**		1.7	0.66	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorooctanesulfonic acid (PFOS)	**2.2**		1.7	1.1	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.7	0.50	ng/L		07/14/25 06:25	07/15/25 07:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	0.83	ng/L		07/14/25 06:25	07/15/25 07:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	0.83	ng/L		07/14/25 06:25	07/15/25 07:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	0.83	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.3	2.1	ng/L		07/14/25 06:25	07/15/25 07:17	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.3	3.3	ng/L		07/14/25 06:25	07/15/25 07:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/14/25 06:25	07/15/25 07:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.41	ng/L		07/14/25 06:25	07/15/25 07:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	0.83	ng/L		07/14/25 06:25	07/15/25 07:17	1

Client Sample ID: DC340039-MW-2

Lab Sample ID: 410-230683-2
Date Collected: 07/02/25 11:15
Matrix: Water
Date Received: 07/03/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.3	2.3	ng/L		07/14/25 06:25	07/15/25 07:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.3	2.1	ng/L		07/14/25 06:25	07/15/25 07:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*5 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C5 PFPeA	*101*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C5 PFHxA	*92.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C4 PFHpA	*94.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C8 PFOA	*97.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C9 PFNA	*102*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C6 PFDA	*96.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C7 PFUnA	*97.6*		*30 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C2 PFTeDA	*85.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C3 PFBS	*107*		*40 - 135*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C3 PFHxS	*106*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C8 PFOS	*108*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C8 FOSA	*95.8*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
d3-NMeFOSAA	*49.1*		*40 - 170*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
d5-NEtFOSAA	*63.4*		*25 - 135*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C2 4:2 FTS	*93.4*		*40 - 200*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C2 6:2 FTS	*90.4*		*40 - 200*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C2 8:2 FTS	*89.3*		*40 - 300*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C3 HFPO-DA	*91.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
d7-N-MeFOSE-M	*81.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
d9-N-EtFOSE-M	*80.5*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
d5-NEtPFOSA	*93.7*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
d3-NMePFOSA	*79.7*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*
13C2 PFDoA	*83.0*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:17*	*1*

Client Sample ID: DC340039-DUP-1

Lab Sample ID: 410-230683-3
Date Collected: 07/02/25 00:00
Matrix: Water
Date Received: 07/03/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.8**	**J**	3.3	0.90	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluoropentanoic acid (PFPeA)	**1.6**		1.6	0.49	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorohexanoic acid (PFHxA)	**2.2**		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluoroheptanoic acid (PFHpA)	**1.1**	**J**	1.6	0.65	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorooctanoic acid (PFOA)	**2.4**		1.6	0.74	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorobutanesulfonic acid (PFBS)	**1.2**	**J**	1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1

Client Sample ID: DC340039-DUP-1

Date Collected: 07/02/25 00:00
Date Received: 07/03/25 10:15

Lab Sample ID: 410-230683-3

Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**2.1**		1.6	0.65	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorooctanesulfonic acid (PFOS)	**1.8**		1.6	1.1	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.6	0.49	ng/L		07/14/25 06:25	07/15/25 07:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	0.82	ng/L		07/14/25 06:25	07/15/25 07:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	0.82	ng/L		07/14/25 06:25	07/15/25 07:30	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	0.82	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.2	2.0	ng/L		07/14/25 06:25	07/15/25 07:30	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.2	3.3	ng/L		07/14/25 06:25	07/15/25 07:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/14/25 06:25	07/15/25 07:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:30	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	0.82	ng/L		07/14/25 06:25	07/15/25 07:30	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.2	2.3	ng/L		07/14/25 06:25	07/15/25 07:30	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.2	2.0	ng/L		07/14/25 06:25	07/15/25 07:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97.7*		*5 - 130*	*07/14/25 06:25*	*07/15/25 07:30*	*1*
13C5 PFPeA	*96.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:30*	*1*
13C5 PFHxA	*91.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:30*	*1*

Client Sample ID: DC340039-DUP-1

Lab Sample ID: 410-230683-3

Date Collected: 07/02/25 00:00
Matrix: Water
Date Received: 07/03/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	86.5		40 - 130	07/14/25 06:25	07/15/25 07:30	1
13C8 PFOA	88.6		40 - 130	07/14/25 06:25	07/15/25 07:30	1
13C9 PFNA	96.6		40 - 130	07/14/25 06:25	07/15/25 07:30	1
13C6 PFDA	85.8		40 - 130	07/14/25 06:25	07/15/25 07:30	1
13C7 PFUnA	86.8		30 - 130	07/14/25 06:25	07/15/25 07:30	1
13C2 PFTeDA	72.9		10 - 130	07/14/25 06:25	07/15/25 07:30	1
13C3 PFBS	102		40 - 135	07/14/25 06:25	07/15/25 07:30	1
13C3 PFHxS	101		40 - 130	07/14/25 06:25	07/15/25 07:30	1
13C8 PFOS	105		40 - 130	07/14/25 06:25	07/15/25 07:30	1
13C8 FOSA	94.4		40 - 130	07/14/25 06:25	07/15/25 07:30	1
d3-NMeFOSAA	49.3		40 - 170	07/14/25 06:25	07/15/25 07:30	1
d5-NEtFOSAA	60.5		25 - 135	07/14/25 06:25	07/15/25 07:30	1
13C2 4:2 FTS	83.4		40 - 200	07/14/25 06:25	07/15/25 07:30	1
13C2 6:2 FTS	85.4		40 - 200	07/14/25 06:25	07/15/25 07:30	1
13C2 8:2 FTS	78.9		40 - 300	07/14/25 06:25	07/15/25 07:30	1
13C3 HFPO-DA	88.2		40 - 130	07/14/25 06:25	07/15/25 07:30	1
d7-N-MeFOSE-M	70.2		10 - 130	07/14/25 06:25	07/15/25 07:30	1
d9-N-EtFOSE-M	68.5		10 - 130	07/14/25 06:25	07/15/25 07:30	1
d5-NEtPFOSA	83.9		10 - 130	07/14/25 06:25	07/15/25 07:30	1
d3-NMePFOSA	76.6		10 - 130	07/14/25 06:25	07/15/25 07:30	1
13C2 PFDoA	73.7		10 - 130	07/14/25 06:25	07/15/25 07:30	1

Client Sample ID: DC340039-FB

Lab Sample ID: 410-230683-4

Date Collected: 07/02/25 10:10
Matrix: Water
Date Received: 07/03/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.87	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.47	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.63	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.71	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.63	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.6	0.47	ng/L		07/14/25 06:25	07/15/25 07:44	1

Client Sample ID: DC340039-FB
Date Collected: 07/02/25 10:10
Date Received: 07/03/25 10:15

Lab Sample ID: 410-230683-4
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.79	ng/L		07/14/25 06:25	07/15/25 07:44	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.79	ng/L		07/14/25 06:25	07/15/25 07:44	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.79	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.9	2.0	ng/L		07/14/25 06:25	07/15/25 07:44	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.9	3.2	ng/L		07/14/25 06:25	07/15/25 07:44	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/14/25 06:25	07/15/25 07:44	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		07/14/25 06:25	07/15/25 07:44	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.79	ng/L		07/14/25 06:25	07/15/25 07:44	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.9	2.2	ng/L		07/14/25 06:25	07/15/25 07:44	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.9	2.0	ng/L		07/14/25 06:25	07/15/25 07:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91.0*		*5 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C5 PFPeA	*87.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C5 PFHxA	*82.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C4 PFHpA	*80.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C8 PFOA	*89.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C9 PFNA	*94.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C6 PFDA	*80.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C7 PFUnA	*81.3*		*30 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C2 PFTeDA	*81.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C3 PFBS	*99.9*		*40 - 135*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C3 PFHxS	*93.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*
13C8 PFOS	*96.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:44*	*1*

Client Sample ID: DC340039-FB

Lab Sample ID: 410-230683-4
Matrix: Water
Date Collected: 07/02/25 10:10
Date Received: 07/03/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	94.0		40 - 130	07/14/25 06:25	07/15/25 07:44	1
d3-NMeFOSAA	72.8		40 - 170	07/14/25 06:25	07/15/25 07:44	1
d5-NEtFOSAA	69.0		25 - 135	07/14/25 06:25	07/15/25 07:44	1
13C2 4:2 FTS	84.7		40 - 200	07/14/25 06:25	07/15/25 07:44	1
13C2 6:2 FTS	84.4		40 - 200	07/14/25 06:25	07/15/25 07:44	1
13C2 8:2 FTS	91.5		40 - 300	07/14/25 06:25	07/15/25 07:44	1
13C3 HFPO-DA	71.2		40 - 130	07/14/25 06:25	07/15/25 07:44	1
d7-N-MeFOSE-M	83.0		10 - 130	07/14/25 06:25	07/15/25 07:44	1
d9-N-EtFOSE-M	83.6		10 - 130	07/14/25 06:25	07/15/25 07:44	1
d5-NEtPFOSA	90.6		10 - 130	07/14/25 06:25	07/15/25 07:44	1
d3-NMePFOSA	79.3		10 - 130	07/14/25 06:25	07/15/25 07:44	1
13C2 PFDoA	74.0		10 - 130	07/14/25 06:25	07/15/25 07:44	1

Client Sample ID: DC340039-EB

Lab Sample ID: 410-230683-5
Matrix: Water
Date Collected: 07/02/25 10:15
Date Received: 07/03/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.89	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.49	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.65	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.73	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.1	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.6	0.49	ng/L		07/14/25 06:25	07/15/25 07:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.81	ng/L		07/14/25 06:25	07/15/25 07:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.81	ng/L		07/14/25 06:25	07/15/25 07:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.81	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Client Sample ID: DC340039-EB
Date Collected: 07/02/25 10:15
Date Received: 07/03/25 10:15

Lab Sample ID: 410-230683-5
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.1	2.0	ng/L		07/14/25 06:25	07/15/25 07:58	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.1	3.2	ng/L		07/14/25 06:25	07/15/25 07:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/14/25 06:25	07/15/25 07:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.41	ng/L		07/14/25 06:25	07/15/25 07:58	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.81	ng/L		07/14/25 06:25	07/15/25 07:58	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.1	2.3	ng/L		07/14/25 06:25	07/15/25 07:58	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.1	2.0	ng/L		07/14/25 06:25	07/15/25 07:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.8*		*5 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C5 PFPeA	*91.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C5 PFHxA	*87.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C4 PFHpA	*92.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C8 PFOA	*86.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C9 PFNA	*91.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C6 PFDA	*82.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C7 PFUnA	*80.4*		*30 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C2 PFTeDA	*74.0*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C3 PFBS	*100*		*40 - 135*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C3 PFHxS	*95.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C8 PFOS	*99.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C8 FOSA	*87.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
d3-NMeFOSAA	*65.6*		*40 - 170*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
d5-NEtFOSAA	*64.4*		*25 - 135*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C2 4:2 FTS	*91.4*		*40 - 200*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C2 6:2 FTS	*87.6*		*40 - 200*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C2 8:2 FTS	*86.0*		*40 - 300*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
13C3 HFPO-DA	*78.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
d7-N-MeFOSE-M	*68.9*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
d9-N-EtFOSE-M	*72.0*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*
d5-NEtPFOSA	*81.0*		*10 - 130*	*07/14/25 06:25*	*07/15/25 07:58*	*1*

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Client Sample ID: DC340039-EB
Date Collected: 07/02/25 10:15
Date Received: 07/03/25 10:15

Lab Sample ID: 410-230683-5
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMePFOSA	74.6		10 - 130	07/14/25 06:25	07/15/25 07:58	1
13C2 PFDoA	67.2		10 - 130	07/14/25 06:25	07/15/25 07:58	1

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-230683-1	DC340039-MW-1	91.3	92.2	94.0	85.9	87.4	91.6	85.2	82.7
410-230683-2	DC340039-MW-2	100	101	92.6	94.3	97.1	102	96.9	97.6
410-230683-3	DC340039-DUP-1	97.7	96.7	91.1	86.5	88.6	96.6	85.8	86.8
410-230683-4	DC340039-FB	91.0	87.7	82.5	80.5	89.5	94.2	80.7	81.3
410-230683-5	DC340039-EB	90.8	91.9	87.7	92.6	86.3	91.9	82.5	80.4
LCS 410-670654/3-A	Lab Control Sample	97.1	96.0	92.1	88.1	94.4	100	89.2	86.7
LCSD 410-670654/5-A	Lab Control Sample Dup	95.2	92.5	81.6	80.2	81.3	87.0	72.9	73.2
LLCS 410-670654/4-A	Lab Control Sample	94.9	98.7	94.3	87.1	84.0	92.6	80.0	82.6
MB 410-670654/2-A	Method Blank	100	98.1	90.7	88.8	91.3	95.4	92.0	89.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-230683-1	DC340039-MW-1	83.6	94.8	89.4	96.3	93.7	57.1	67.6	80.2
410-230683-2	DC340039-MW-2	85.3	107	106	108	95.8	49.1	63.4	93.4
410-230683-3	DC340039-DUP-1	72.9	102	101	105	94.4	49.3	60.5	83.4
410-230683-4	DC340039-FB	81.2	99.9	93.0	96.2	94.0	72.8	69.0	84.7
410-230683-5	DC340039-EB	74.0	100	95.6	99.4	87.9	65.6	64.4	91.4
LCS 410-670654/3-A	Lab Control Sample	66.6	101	97.9	104	98.2	87.2	96.7	97.3
LCSD 410-670654/5-A	Lab Control Sample Dup	71.1	88.0	82.1	85.8	96.3	79.6	77.4	92.1
LLCS 410-670654/4-A	Lab Control Sample	81.0	95.0	91.6	101	93.7	84.4	88.7	95.7
MB 410-670654/2-A	Method Blank	75.2	101	97.0	105	94.6	87.3	97.1	91.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-230683-1	DC340039-MW-1	78.1	76.2	76.9	75.0	77.2	87.7	76.3	73.3
410-230683-2	DC340039-MW-2	90.4	89.3	91.2	81.2	80.5	93.7	79.7	83.0
410-230683-3	DC340039-DUP-1	85.4	78.9	88.2	70.2	68.5	83.9	76.6	73.7
410-230683-4	DC340039-FB	84.4	91.5	71.2	83.0	83.6	90.6	79.3	74.0
410-230683-5	DC340039-EB	87.6	86.0	78.2	68.9	72.0	81.0	74.6	67.2
LCS 410-670654/3-A	Lab Control Sample	97.7	98.0	84.5	79.1	77.6	91.9	76.5	73.7
LCSD 410-670654/5-A	Lab Control Sample Dup	83.5	79.1	81.2	77.5	72.9	83.1	71.9	66.3
LLCS 410-670654/4-A	Lab Control Sample	87.9	93.9	86.9	66.6	62.1	87.8	72.9	75.3
MB 410-670654/2-A	Method Blank	90.1	91.6	87.4	65.3	61.1	91.3	77.4	79.3

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230683-1
Project/Site: NS Farrington (DC340039)

d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-670654/2-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670654

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/14/25 06:25	07/15/25 03:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/14/25 06:25	07/15/25 03:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-670654/2-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670654

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/14/25 06:25	07/15/25 03:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/14/25 06:25	07/15/25 03:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*5 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C5 PFPeA	*98.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C5 PFHxA	*90.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C4 PFHpA	*88.8*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C8 PFOA	*91.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C9 PFNA	*95.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C6 PFDA	*92.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C7 PFUnA	*89.5*		*30 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 PFTeDA	*75.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C3 PFBS	*101*		*40 - 135*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C3 PFHxS	*97.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C8 PFOS	*105*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C8 FOSA	*94.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d3-NMeFOSAA	*87.3*		*40 - 170*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d5-NEtFOSAA	*97.1*		*25 - 135*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 4:2 FTS	*91.6*		*40 - 200*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 6:2 FTS	*90.1*		*40 - 200*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 8:2 FTS	*91.6*		*40 - 300*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C3 HFPO-DA	*87.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d7-N-MeFOSE-M	*65.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d9-N-EtFOSE-M	*61.1*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d5-NEtPFOSA	*91.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d3-NMePFOSA	*77.4*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 PFDoA	*79.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*

Lab Sample ID: LCS 410-670654/3-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	69.5		ng/L		87	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	34.6		ng/L		86	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	35.9		ng/L		90	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	35.6		ng/L		89	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	33.0		ng/L		83	70 - 150
Perfluorononanoic acid (PFNA)	40.0	30.8		ng/L		77	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	36.0		ng/L		90	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-670654/3-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	35.0		ng/L		87	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	38.9		ng/L		97	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	34.0		ng/L		85	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	31.2		ng/L		78	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.5		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	35.2		ng/L		94	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.7		ng/L		92	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	27.6		ng/L		72	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	32.4		ng/L		87	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	27.5		ng/L		71	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	26.7		ng/L		69	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	21.1		ng/L		54	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	68.5		ng/L		91	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	66.6		ng/L		87	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	68.6		ng/L		89	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	33.4		ng/L		83	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	36.7		ng/L		92	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.5		ng/L		84	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	35.0		ng/L		87	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.7		ng/L		84	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	189		ng/L		95	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	186		ng/L		93	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.3		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.4		ng/L		93	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	31.4		ng/L		79	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	35.5		ng/L		89	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	41.6		ng/L		104	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-670654/3-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	28.3		ng/L		76	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	25.0		ng/L		66	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.1		ng/L		84	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	65.6		ng/L		82	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	171		ng/L		85	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	155		ng/L		77	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*97.1*		*5 - 130*
13C5 PFPeA	*96.0*		*40 - 130*
13C5 PFHxA	*92.1*		*40 - 130*
13C4 PFHpA	*88.1*		*40 - 130*
13C8 PFOA	*94.4*		*40 - 130*
13C9 PFNA	*100*		*40 - 130*
13C6 PFDA	*89.2*		*40 - 130*
13C7 PFUnA	*86.7*		*30 - 130*
13C2 PFTeDA	*66.6*		*10 - 130*
13C3 PFBS	*101*		*40 - 135*
13C3 PFHxS	*97.9*		*40 - 130*
13C8 PFOS	*104*		*40 - 130*
13C8 FOSA	*98.2*		*40 - 130*
d3-NMeFOSAA	*87.2*		*40 - 170*
d5-NEtFOSAA	*96.7*		*25 - 135*
13C2 4:2 FTS	*97.3*		*40 - 200*
13C2 6:2 FTS	*97.7*		*40 - 200*
13C2 8:2 FTS	*98.0*		*40 - 300*
13C3 HFPO-DA	*84.5*		*40 - 130*
d7-N-MeFOSE-M	*79.1*		*10 - 130*
d9-N-EtFOSE-M	*77.6*		*10 - 130*
d5-NEtPFOSA	*91.9*		*10 - 130*
d3-NMePFOSA	*76.5*		*10 - 130*
13C2 PFDoA	*73.7*		*10 - 130*

Lab Sample ID: LCSD 410-670654/5-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	71.1		ng/L		89	70 - 140	2	30
Perfluoropentanoic acid (PFPeA)			40.0	33.7		ng/L		84	65 - 135	2	30
Perfluorohexanoic acid (PFHxA)			40.0	39.5		ng/L		99	70 - 145	10	30
Perfluoroheptanoic acid (PFHpA)			40.0	36.4		ng/L		91	70 - 150	2	30
Perfluorooctanoic acid (PFOA)			40.0	31.0		ng/L		77	70 - 150	6	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-670654/5-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	29.6		ng/L		74	70 - 150	4	30
Perfluorodecanoic acid (PFDA)	40.0	35.2		ng/L		88	70 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.6		ng/L		94	70 - 145	7	30
Perfluorododecanoic acid (PFDoA)	40.0	40.8		ng/L		102	70 - 140	5	30
Perfluorotridecanoic acid (PFTrDA)	40.0	38.4		ng/L		96	65 - 140	12	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	34.2		ng/L		85	60 - 140	9	30
Perfluorobutanesulfonic acid (PFBS)	35.5	31.6		ng/L		89	60 - 145	4	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	33.0		ng/L		88	65 - 140	7	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.2		ng/L		91	65 - 145	1	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	26.7		ng/L		70	70 - 150	3	30
Perfluorooctanesulfonic acid (PFOS)	37.2	29.2		ng/L		78	55 - 150	11	30
Perfluorononanesulfonic acid (PFNS)	38.5	30.2		ng/L		78	65 - 145	9	30
Perfluorodecanesulfonic acid (PFDS)	38.6	32.5		ng/L		84	60 - 145	20	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	29.8	*1	ng/L		77	50 - 145	34	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	68.1		ng/L		91	70 - 145	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	74.2		ng/L		97	65 - 155	11	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	76.9		ng/L		100	60 - 150	11	30
Perfluorooctanesulfonamide (PFOSA)	40.0	33.9		ng/L		85	70 - 145	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	37.7		ng/L		94	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.5		ng/L		84	65 - 145	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.1		ng/L		93	50 - 140	6	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.7		ng/L		92	70 - 145	8	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	198		ng/L		99	70 - 145	4	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	185		ng/L		93	70 - 135	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.9		ng/L		90	70 - 140	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	33.1		ng/L		88	65 - 145	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	32.7		ng/L		82	55 - 140	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	35.8		ng/L		89	60 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-670654/5-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	44.4		ng/L		111	50 - 150	6	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.0		ng/L		80	70 - 155	6	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	30.4		ng/L		80	55 - 160	19	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	29.5		ng/L		83	70 - 140	2	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	69.0		ng/L		86	65 - 130	5	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	193		ng/L		96	70 - 135	12	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	170		ng/L		85	50 - 145	10	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*95.2*		*5 - 130*
13C5 PFPeA	*92.5*		*40 - 130*
13C5 PFHxA	*81.6*		*40 - 130*
13C4 PFHpA	*80.2*		*40 - 130*
13C8 PFOA	*81.3*		*40 - 130*
13C9 PFNA	*87.0*		*40 - 130*
13C6 PFDA	*72.9*		*40 - 130*
13C7 PFUnA	*73.2*		*30 - 130*
13C2 PFTeDA	*71.1*		*10 - 130*
13C3 PFBS	*88.0*		*40 - 135*
13C3 PFHxS	*82.1*		*40 - 130*
13C8 PFOS	*85.8*		*40 - 130*
13C8 FOSA	*96.3*		*40 - 130*
d3-NMeFOSAA	*79.6*		*40 - 170*
d5-NEtFOSAA	*77.4*		*25 - 135*
13C2 4:2 FTS	*92.1*		*40 - 200*
13C2 6:2 FTS	*83.5*		*40 - 200*
13C2 8:2 FTS	*79.1*		*40 - 300*
13C3 HFPO-DA	*81.2*		*40 - 130*
d7-N-MeFOSE-M	*77.5*		*10 - 130*
d9-N-EtFOSE-M	*72.9*		*10 - 130*
d5-NEtPFOSA	*83.1*		*10 - 130*
d3-NMePFOSA	*71.9*		*10 - 130*
13C2 PFDoA	*66.3*		*10 - 130*

Lab Sample ID: LLCS 410-670654/4-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.17		ng/L		90	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	3.71		ng/L		93	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.65		ng/L		91	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-670654/4-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.88		ng/L		97	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.62		ng/L		91	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.67		ng/L		92	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.97		ng/L		99	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.90		ng/L		98	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.33		ng/L		108	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.85		ng/L		96	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.42		ng/L		85	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.45		ng/L		97	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	4.08		ng/L		108	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.10		ng/L		85	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.05		ng/L		80	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.48		ng/L		94	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.43		ng/L		89	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.15		ng/L		82	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.96		ng/L		76	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.47		ng/L		100	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	8.02		ng/L		105	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.01		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.12		ng/L		103	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.40		ng/L		110	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.04		ng/L		101	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.12		ng/L		103	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	4.02		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.5		ng/L		108	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	23.2		ng/L		116	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.71		ng/L		90	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.54		ng/L		93	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.46		ng/L		86	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-670654/4-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro-4-methoxybutanoic acid (PFMBA)			4.00	3.35		ng/L		84	60 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			4.00	3.89		ng/L		97	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			3.74	3.03		ng/L		81	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			3.78	2.99		ng/L		79	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			3.57	2.97		ng/L		83	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			8.00	6.36		ng/L		79	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			20.0	18.8		ng/L		94	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			20.0	15.7		ng/L		79	50 - 145		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*94.9*		*5 - 130*
13C5 PFPeA	*98.7*		*40 - 130*
13C5 PFHxA	*94.3*		*40 - 130*
13C4 PFHpA	*87.1*		*40 - 130*
13C8 PFOA	*84.0*		*40 - 130*
13C9 PFNA	*92.6*		*40 - 130*
13C6 PFDA	*80.0*		*40 - 130*
13C7 PFUnA	*82.6*		*30 - 130*
13C2 PFTeDA	*81.0*		*10 - 130*
13C3 PFBS	*95.0*		*40 - 135*
13C3 PFHxS	*91.6*		*40 - 130*
13C8 PFOS	*101*		*40 - 130*
13C8 FOSA	*93.7*		*40 - 130*
d3-NMeFOSAA	*84.4*		*40 - 170*
d5-NEtFOSAA	*88.7*		*25 - 135*
13C2 4:2 FTS	*95.7*		*40 - 200*
13C2 6:2 FTS	*87.9*		*40 - 200*
13C2 8:2 FTS	*93.9*		*40 - 300*
13C3 HFPO-DA	*86.9*		*40 - 130*
d7-N-MeFOSE-M	*66.6*		*10 - 130*
d9-N-EtFOSE-M	*62.1*		*10 - 130*
d5-NEtPFOSA	*87.8*		*10 - 130*
d3-NMePFOSA	*72.9*		*10 - 130*
13C2 PFDoA	*75.3*		*10 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

LCMS

Analysis Batch: 670538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230683-1	DC340039-MW-1	Total/NA	Water	1633A	670654
410-230683-2	DC340039-MW-2	Total/NA	Water	1633A	670654
410-230683-3	DC340039-DUP-1	Total/NA	Water	1633A	670654
410-230683-4	DC340039-FB	Total/NA	Water	1633A	670654
410-230683-5	DC340039-EB	Total/NA	Water	1633A	670654
MB 410-670654/2-A	Method Blank	Total/NA	Water	1633A	670654
LCS 410-670654/3-A	Lab Control Sample	Total/NA	Water	1633A	670654
LCSD 410-670654/5-A	Lab Control Sample Dup	Total/NA	Water	1633A	670654
LLCS 410-670654/4-A	Lab Control Sample	Total/NA	Water	1633A	670654

Prep Batch: 670654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230683-1	DC340039-MW-1	Total/NA	Water	1633A	
410-230683-2	DC340039-MW-2	Total/NA	Water	1633A	
410-230683-3	DC340039-DUP-1	Total/NA	Water	1633A	
410-230683-4	DC340039-FB	Total/NA	Water	1633A	
410-230683-5	DC340039-EB	Total/NA	Water	1633A	
MB 410-670654/2-A	Method Blank	Total/NA	Water	1633A	
LCS 410-670654/3-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-670654/5-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-670654/4-A	Lab Control Sample	Total/NA	Water	1633A	

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Client Sample ID: DC340039-MW-1
Lab Sample ID: 410-230683-1
Date Collected: 07/02/25 10:30
Matrix: Water
Date Received: 07/03/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 07:03

Client Sample ID: DC340039-MW-2
Lab Sample ID: 410-230683-2
Date Collected: 07/02/25 11:15
Matrix: Water
Date Received: 07/03/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 07:17

Client Sample ID: DC340039-DUP-1
Lab Sample ID: 410-230683-3
Date Collected: 07/02/25 00:00
Matrix: Water
Date Received: 07/03/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 07:30

Client Sample ID: DC340039-FB
Lab Sample ID: 410-230683-4
Date Collected: 07/02/25 10:10
Matrix: Water
Date Received: 07/03/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 07:44

Client Sample ID: DC340039-EB
Lab Sample ID: 410-230683-5
Date Collected: 07/02/25 10:15
Matrix: Water
Date Received: 07/03/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 07:58

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230683-1
Project/Site: NS Farrington (DC340039)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: NS Farrington (DC340039)

Job ID: 410-230683-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-230683-1	DC340039-MW-1	Water	07/02/25 10:30	07/03/25 10:15
410-230683-2	DC340039-MW-2	Water	07/02/25 11:15	07/03/25 10:15
410-230683-3	DC340039-DUP-1	Water	07/02/25 00:00	07/03/25 10:15
410-230683-4	DC340039-FB	Water	07/02/25 10:10	07/03/25 10:15
410-230683-5	DC340039-EB	Water	07/02/25 10:15	07/03/25 10:15

Chain of Custody Record

eurofins | Environment Testing

410-230683 Chain of Custody

Sampler: Gavin De Mars	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159591-44133.1
Phone: (951) 595-2256	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1

Sam Martin

Company: Hart & Hickman, PC	PWSID:	Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:	
City: Charlotte	TAT Requested (days): Standard H&H (10-day)	
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No	
Phone: 704-887-4608(Tel)	PO #: DS0.PFAS	
Email: smartin@harthickman.com	WO #:	
Project Name: NS Farrington (DC340039)	Project #: 41025876	
Site:	SSOW#:	

Analysis Requested

Preservation Codes: N - None

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS (Ast)	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC340039 - MW-1	7/2/25	1030	G	Water	N	N	✓	✓	3	* Please report J Flags
DC340039 - MW-2		1115		Water			✓	✓	3	& report non-detects
DC340039 - DUP-1		—		Water				✓	2	as < MDLs
DC340039 - FB		1010		Water				✓	2	* EDD Formats: H&H,
DC340039 - EB		1015		Water				✓	2	DSCA, NCDEQ
				Water						* ALL TOP analyses
										hold until 1633 results

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Gavin De Mars	Date/Time: 7/2/25 15:30	Company: H&H	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: JM	Date/Time: 7/3/25 10:15	Company: EWST

Custody Seals Intact: (Δ Yes) Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: R: 5.3, 4.6 C: 5.3, 4.6

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-230683-1

Login Number: 230683
List Number: 1
Creator: Bui, Anthony

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

ONE HOUR MARTINIZING

DC360006

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 12/16/2025 3:50:21 PM Revision 4

JOB DESCRIPTION

One Hour Martinizing (DC360006)

JOB NUMBER

410-229649-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

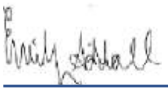
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
12/16/2025 3:50:21 PM
Revision 4

Authorized for release by
Emily Siddall, Principal Project Manager
Emily.Siddall@et.eurofinsus.com
Designee for
David Barnhart, Senior Project Manager
David.Barnhart@et.eurofinsus.com
(717)656-2300

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Qualifiers

LCMS

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-229649-1

REVISION

The report being provided is a revision of the original report sent on 8/5/2025. The report (revision 3) is being revised due to additional changes needed for the DS0.PFAS lab reports and EDDs.

Report revision history
Revision 2 - 11/12/2025 - Reason - client requesting only including the following samples on this report: DC360006-WW-PRE, DC360006-WW-POST, DC360006-DUP-2, DC360006-MIST-PRE, DC360006-DET and associated lab QA/QC.
Revision 1 - 8/8/2025 - Reason - a client request to split the reports by sample ID.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 6/26/2025 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

PFAS
Method 537_IDA_TOPS - Post-Treatment: The recovery for target analyte Perfluorodecanoic acid (PFDA) is outside the QC acceptance limits in the opening continuing calibration verification standard. Since the result is high and target is not detected in the following samples: DC360006-WW-PRE (410-229649-2), DC360006-WW-POST (410-229649-3) and DC360006-MIST-PRE (410-229649-4), the data is reported.

Method 537_IDA_TOPS - Post-Treatment: Target analyte(s) Perfluorodecanoic acid (PFDA) were detected in the method blank associated with the following sample: DC360006-DET (410-229649-1). The data is reported.

Method PFC_IDA: The recovery for target analyte 3-Perfluoroheptylpropanoic acid (7:3 FTCA) is outside the QC acceptance limits in the opening continuing calibration verification standard. Since the result is high and target is not detected in the following samples: DC360006-WW-PRE (410-229649-2), DC360006-WW-POST (410-229649-3), DC360006-MIST-PRE (410-229649-4) and DC360006-DUP-2 (410-229649-10), the data is reported.

Method PFC_IDA: The recovery for the labeled isotope: 13C2-8:2 FTS in the following sample: DC360006-DET (410-229649-1) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d9-N-EtFOSE-M and d5-NEtPFOSA recoveries were outside QC acceptance criteria in sample DC360006-DET (410-229649-1). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Analyte 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS) is out of QC acceptance limits in the lower-level laboratory control spike (LLCS) in sample: DC360006-MW-8 (410-229649-5) and DC360006-MW-2S

(410-229649-6). Since the recovery for this analyte is within QC acceptance limits in the laboratory control spike (LCS), the data is reported.

Analyte 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS) is out of QC acceptance limits in the lower-level laboratory control spike (LLCS) in sample: DC360006-MW-2S (410-229649-6). Since the recovery for this analyte is within QC acceptance limits in the laboratory control spike (LCS), the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: One Hour Martinizing (DC360006)

Job ID: 410-229649-1

Client Sample ID: DC360006-DET — Lab Sample ID: 410-229649-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	0.26	J B cn	0.59	0.20	ng/g	1	☼	537 TOP	Post-Treatment

Client Sample ID: DC360006-WW-PRE — Lab Sample ID: 410-229649-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	3800		2500	2100	ng/L	1		537 IDA	Total/NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	670	J	1500	500	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	150	J B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	260	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC360006-WW-POST — Lab Sample ID: 410-229649-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1400	B	1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoropentanoic acid (PFPeA)	440	J B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorohexanoic acid (PFHxA)	870	J	1000	500	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	1100	B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	820	J B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	290	J B	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	290	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC360006-MIST-PRE — Lab Sample ID: 410-229649-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	220	J B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	460	J B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorooctanoic acid (PFOA)	350	J B	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluorononanoic acid (PFNA)	110	J B	1000	100	ng/L	1		537 TOP	Post-Treatment
Perfluorodecanoic acid (PFDA)	260	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC360006-MW-8 — Lab Sample ID: 410-229649-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	17		9.9	3.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanoic acid (PFHxA)	22		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	41		9.9	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	32		9.9	4.4	ng/L	1		1633 TOPS	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client Sample ID: DC360006-MW-8 (Continued) — Lab Sample ID: 410-229649-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	12		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	5.7	J	9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanoic acid (PFBA)	3.3		3.1	0.85	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	3.4		1.6	0.47	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	3.4		1.6	0.39	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.5		1.6	0.62	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	2.5		1.6	0.70	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		1.6	0.62	ng/L	1		1633A	Total/NA

Client Sample ID: DC360006-MW-2S — Lab Sample ID: 410-229649-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	490		20	5.4	ng/L	1		1633 TOPS	Post-Treatment
Perfluoropentanoic acid (PFPeA)	880		9.9	3.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanoic acid (PFHxA)	430		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	130		9.9	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	67		9.9	4.4	ng/L	1		1633 TOPS	Post-Treatment
Perfluorononanoic acid (PFNA)	12		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	340		9.9	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanesulfonic acid (PFHxS)	10		9.9	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanoic acid (PFBA)	140		3.3	0.91	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	710		1.7	0.50	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	390		1.7	0.41	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	83		1.7	0.66	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	33		1.7	0.75	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	280		1.7	0.41	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.9		1.7	0.41	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.1		1.7	0.66	ng/L	1		1633A	Total/NA

Client Sample ID: DC360006-FB — Lab Sample ID: 410-229649-7

No Detections.

Client Sample ID: DC360006-EB — Lab Sample ID: 410-229649-8

No Detections.

Client Sample ID: DC360006-DUP-1 — Lab Sample ID: 410-229649-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	150		3.2	0.88	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	790		1.6	0.48	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	400		1.6	0.40	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	80		1.6	0.64	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	37		1.6	0.72	ng/L	1		1633A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DC360006-DUP-1 (Continued)
Lab Sample ID: 410-229649-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	360		1.6	0.40	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	11		1.6	0.64	ng/L	1		1633A	Total/NA

Client Sample ID: DC360006-DUP-2
Lab Sample ID: 410-229649-10

No Detections.

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-DET
Lab Sample ID: 410-229649-1
Date Collected: 06/18/25 10:10
Matrix: Solid
Date Received: 06/26/25 10:15
Percent Solids: 99.5

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.9	0.77	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluoropentanoic acid (PFPeA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorohexanoic acid (PFHxA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluoroheptanoic acid (PFHpA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorooctanoic acid (PFOA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorononanoic acid (PFNA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorodecanoic acid (PFDA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluoroundecanoic acid (PFUnA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorododecanoic acid (PFDoA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.38	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.57	0.49	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorononanesulfonic acid (PFNS)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.9	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1.9	0.57	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1.9	0.57	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.9	0.57	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.9	0.48	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.9	0.48	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.9	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.9	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1.9	0.48	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1.9	0.48	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.9	0.96	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		2.9	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.9	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1

Client Sample ID: DC360006-DET
Lab Sample ID: 410-229649-1
Date Collected: 06/18/25 10:10
Matrix: Solid
Date Received: 06/26/25 10:15
Percent Solids: 99.5

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.57	0.19	ng/g	☼	07/08/25 09:11	07/10/25 03:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4-PFBA	*74*		*25 - 147*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C5-PFPeA	*73*		*17 - 154*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C5-PFHxA	*70*		*20 - 150*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C4-PFHpA	*82*		*20 - 158*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C8-PFOA	*73*		*28 - 148*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C9-PFNA	*93*		*27 - 159*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C6-PFDA	*78*		*25 - 152*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C7-PFUnA	*31*		*12 - 169*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C2-PFDoA	*15*		*10 - 164*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C2-PFTeDA	*41*		*10 - 165*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C3-PFBS	*65*		*31 - 166*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C3-PFHxS	*83*		*26 - 155*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C8-PFOS	*83*		*34 - 153*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C8-PFOSA	*26*		*13 - 151*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
d3-NMeFOSAA	*35*		*10 - 172*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
d5-NEtFOSAA	*24*		*10 - 188*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C2-4:2 FTS	*62*		*10 - 190*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C2-6:2 FTS	*82*		*10 - 200*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C2-8:2 FTS	*213*	**5+ cn*	*10 - 200*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C3-HFPO-DA	*78*		*17 - 147*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
d7-N-MeFOSE-M	*21*		*10 - 177*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
d9-N-EtFOSE-M	*6*	**5- cn*	*10 - 168*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
d5-NEtPFOSA	*8*	**5- cn*	*10 - 149*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
d3-NMePFOSA	*21*		*10 - 150*	*07/08/25 09:11*	*07/10/25 03:47*	*1*
13C-6:2 FTCA	*24*		*10 - 162*	*07/08/25 09:11*	*07/10/25 03:47*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.79	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluoropentanoic acid (PFPeA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorohexanoic acid (PFHxA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluoroheptanoic acid (PFHpA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorooctanoic acid (PFOA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorononanoic acid (PFNA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorodecanoic acid (PFDA)	**0.26**	**J B cn**	0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluoroundecanoic acid (PFUnA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorododecanoic acid (PFDoA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.39	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-DET
Lab Sample ID: 410-229649-1
Date Collected: 06/18/25 10:10
Matrix: Solid
Date Received: 06/26/25 10:15
Percent Solids: 99.5

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.59	0.50	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorononanesulfonic acid (PFNS)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0	0.59	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0	0.59	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.59	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.49	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.49	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.49	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.49	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		3.0	0.98	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1
6:2 FTCA	ND		0.59	0.20	ng/g	☼	07/17/25 08:29	07/19/25 23:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92*		*25 - 147*	*07/17/25 08:29*	*07/19/25 23:07*	*1*
13C5 PFPeA	*90*		*17 - 154*	*07/17/25 08:29*	*07/19/25 23:07*	*1*

Client Sample ID: DC360006-DET
Lab Sample ID: 410-229649-1
Date Collected: 06/18/25 10:10
Matrix: Solid
Date Received: 06/26/25 10:15
Percent Solids: 99.5

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	67		20 - 150	07/17/25 08:29	07/19/25 23:07	1
13C4 PFHpA	90		20 - 158	07/17/25 08:29	07/19/25 23:07	1
13C8 PFOA	84		28 - 148	07/17/25 08:29	07/19/25 23:07	1
13C9 PFNA	102		27 - 159	07/17/25 08:29	07/19/25 23:07	1
13C6 PFDA	87		25 - 152	07/17/25 08:29	07/19/25 23:07	1
13C7 PFUnA	34		12 - 169	07/17/25 08:29	07/19/25 23:07	1
13C2-PFDoDA	17		10 - 164	07/17/25 08:29	07/19/25 23:07	1
13C2 PFTeDA	40		10 - 165	07/17/25 08:29	07/19/25 23:07	1
13C3 PFBS	112		31 - 166	07/17/25 08:29	07/19/25 23:07	1
13C3 PFHxS	92		26 - 155	07/17/25 08:29	07/19/25 23:07	1
13C8 PFOS	92		34 - 153	07/17/25 08:29	07/19/25 23:07	1
13C8 FOSA	30		13 - 151	07/17/25 08:29	07/19/25 23:07	1
d5-NEtFOSAA	32		10 - 188	07/17/25 08:29	07/19/25 23:07	1
M2-6:2 FTS	178		10 - 200	07/17/25 08:29	07/19/25 23:07	1
M2-8:2 FTS	195		10 - 200	07/17/25 08:29	07/19/25 23:07	1
13C3 HFPO-DA	80		17 - 147	07/17/25 08:29	07/19/25 23:07	1
d7-N-MeFOSE-M	23		10 - 177	07/17/25 08:29	07/19/25 23:07	1
d9-N-EtFOSE-M	8	*5-	10 - 168	07/17/25 08:29	07/19/25 23:07	1
d5-NEtPFOSA	10		10 - 149	07/17/25 08:29	07/19/25 23:07	1
d3-NMePFOSA	22		10 - 150	07/17/25 08:29	07/19/25 23:07	1
13C-6:2 FTCA	48		10 - 162	07/17/25 08:29	07/19/25 23:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	69		10 - 161	07/17/25 08:29	07/19/25 23:07	1
13C4 PFOA	84		38 - 132	07/17/25 08:29	07/19/25 23:07	1
13C2 PFUnA	22		10 - 162	07/17/25 08:29	07/19/25 23:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**0.5**		1.0	1.0	%			07/08/25 10:46	1

Client Sample ID: DC360006-WW-PRE
Lab Sample ID: 410-229649-2
Date Collected: 06/24/25 09:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**3800**		2500	2100	ng/L		07/07/25 08:35	07/10/25 07:48	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**670**	**J**	1500	500	ng/L		07/07/25 08:35	07/10/25 07:48	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 07:48	1

Client Sample ID: DC360006-WW-PRE
Lab Sample ID: 410-229649-2
Date Collected: 06/24/25 09:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/07/25 08:35	07/10/25 07:48	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 07:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		990	300	ng/L		07/07/25 08:35	07/10/25 07:48	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 07:48	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorobutanesulfonic acid (PFBS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorobutanoic acid (PFBA)	ND		2500	990	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorodecanoic acid (PFDA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorododecanoic acid (PFDoA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluoroheptanoic acid (PFHpA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorohexanesulfonic acid (PFHxS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorohexanoic acid (PFHxA)	ND		990	450	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorononanesulfonic acid (PFNS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorononanoic acid (PFNA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorooctanesulfonamide (PFOSA)	ND		990	350	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorooctanesulfonic acid (PFOS)	ND		990	500	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorooctanoic acid (PFOA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluoropentanesulfonic acid (PFPeS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluoropentanoic acid (PFPeA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorotetradecanoic acid (PFTeDA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluorotridecanoic acid (PFTrDA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluoroundecanoic acid (PFUnA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 07:48	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		990	150	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 07:48	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	990	150	ng/L		07/07/25 08:35	07/10/25 07:48	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 07:48	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 07:48	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 07:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*75*		*19 - 191*	*07/07/25 08:35*	*07/10/25 07:48*	*1*
13C2-6:2 FTS	*88*		*13 - 200*	*07/07/25 08:35*	*07/10/25 07:48*	*1*
13C2-8:2 FTS	*98*		*10 - 200*	*07/07/25 08:35*	*07/10/25 07:48*	*1*

Client Sample ID: DC360006-WW-PRE
Lab Sample ID: 410-229649-2

Date Collected: 06/24/25 09:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-PFTeDA	83		10 - 186	07/07/25 08:35	07/10/25 07:48	1
13C3-HFPO-DA	71		10 - 140	07/07/25 08:35	07/10/25 07:48	1
13C3-PFBS	96		24 - 176	07/07/25 08:35	07/10/25 07:48	1
13C4-PFBA	82		26 - 162	07/07/25 08:35	07/10/25 07:48	1
13C4-PFHpA	92		10 - 193	07/07/25 08:35	07/10/25 07:48	1
13C5-PFPeA	87		15 - 162	07/07/25 08:35	07/10/25 07:48	1
13C8-PFOA	71		27 - 160	07/07/25 08:35	07/10/25 07:48	1
13C8-PFOS	89		22 - 172	07/07/25 08:35	07/10/25 07:48	1
d3-NMeFOSAA	86		10 - 198	07/07/25 08:35	07/10/25 07:48	1
d5-NEtFOSAA	85		10 - 200	07/07/25 08:35	07/10/25 07:48	1
d7-N-MeFOSE-M	66		10 - 181	07/07/25 08:35	07/10/25 07:48	1
d9-N-EtFOSE-M	54		10 - 182	07/07/25 08:35	07/10/25 07:48	1
13C3-PFHxS	95		11 - 180	07/07/25 08:35	07/10/25 07:48	1
13C5-PFHxA	93		10 - 176	07/07/25 08:35	07/10/25 07:48	1
13C6-PFDA	84		19 - 168	07/07/25 08:35	07/10/25 07:48	1
13C7-PFUnA	96		10 - 182	07/07/25 08:35	07/10/25 07:48	1
d3-NMePFOSA	56		10 - 137	07/07/25 08:35	07/10/25 07:48	1
d5-NEtPFOSA	53		10 - 130	07/07/25 08:35	07/10/25 07:48	1
13C8-PFOSA	66		10 - 149	07/07/25 08:35	07/10/25 07:48	1
13C2-PFDoA	89		10 - 183	07/07/25 08:35	07/10/25 07:48	1
13C9-PFNA	75		10 - 198	07/07/25 08:35	07/10/25 07:48	1
13C-6:2 FTCA	66		10 - 185	07/07/25 08:35	07/10/25 07:48	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorooctanoic acid (PFOA)	**150**	**J B**	1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorodecanoic acid (PFDA)	**260**	**J B cn**	1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/11/25 07:30	07/17/25 14:58	1

Client: Hart & Hickman, PC
Project/Site: One Hour Martinizing (DC360006)

Job ID: 410-229649-1

Client Sample ID: DC360006-WW-PRE
Date Collected: 06/24/25 09:15
Date Received: 06/26/25 10:15

Lab Sample ID: 410-229649-2
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/11/25 07:30	07/17/25 14:58	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:58	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:58	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/11/25 07:30	07/17/25 14:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:58	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:58	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:58	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:58	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/11/25 07:30	07/17/25 14:58	1
6:2 FTCA	ND	*+	1000	350	ng/L		07/11/25 07:30	07/17/25 14:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*10 - 168*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C5 PFPeA	*118*		*15 - 189*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C5 PFHxA	*89*		*20 - 165*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C4 PFHpA	*96*		*33 - 166*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C8 PFOA	*91*		*40 - 154*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C9 PFNA	*109*		*39 - 162*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C6 PFDA	*96*		*41 - 153*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C7 PFUnA	*91*		*35 - 161*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C2-PFDoDA	*81*		*22 - 165*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C2 PFTeDA	*89*		*17 - 156*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C3 PFBS	*120*		*27 - 200*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C3 PFHxS	*101*		*39 - 164*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C8 PFOS	*101*		*44 - 153*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
13C8 FOSA	*76*		*11 - 149*	*07/11/25 07:30*	*07/17/25 14:58*	*1*
d5-NEtFOSAA	*98*		*30 - 180*	*07/11/25 07:30*	*07/17/25 14:58*	*1*

Client Sample ID: DC360006-WW-PRE
Lab Sample ID: 410-229649-2

Date Collected: 06/24/25 09:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	85		26 - 200	07/11/25 07:30	07/17/25 14:58	1
M2-8:2 FTS	139		27 - 200	07/11/25 07:30	07/17/25 14:58	1
13C3 HFPO-DA	87		11 - 166	07/11/25 07:30	07/17/25 14:58	1
d7-N-MeFOSE-M	72		10 - 154	07/11/25 07:30	07/17/25 14:58	1
d9-N-EtFOSE-M	70		10 - 146	07/11/25 07:30	07/17/25 14:58	1
d5-NEtPFOSA	71		10 - 130	07/11/25 07:30	07/17/25 14:58	1
d3-NMePFOSA	71		10 - 130	07/11/25 07:30	07/17/25 14:58	1
13C-6:2 FTCA	59		15 - 182	07/11/25 07:30	07/17/25 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	67		26 - 150	07/11/25 07:30	07/17/25 14:58	1
13C4 PFOA	71		45 - 147	07/11/25 07:30	07/17/25 14:58	1
13C2 PFUnA	66		11 - 187	07/11/25 07:30	07/17/25 14:58	1

Client Sample ID: DC360006-WW-POST
Lab Sample ID: 410-229649-3

Date Collected: 06/24/25 09:20
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		07/07/25 08:35	07/10/25 08:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	480	ng/L		07/07/25 08:35	07/10/25 08:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		07/07/25 08:35	07/10/25 08:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		07/07/25 08:35	07/10/25 08:02	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		07/07/25 08:35	07/10/25 08:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		950	290	ng/L		07/07/25 08:35	07/10/25 08:02	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		07/07/25 08:35	07/10/25 08:02	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorobutanoic acid (PFBA)	ND		2400	950	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorodecanoic acid (PFDA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorododecanoic acid (PFDoA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1

Client Sample ID: DC360006-WW-POST
Lab Sample ID: 410-229649-3
Date Collected: 06/24/25 09:20
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluoroheptanoic acid (PFHpA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorohexanoic acid (PFHxA)	ND		950	430	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorononanesulfonic acid (PFNS)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorononanoic acid (PFNA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorooctanesulfonamide (PFOSA)	ND		950	330	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorooctanesulfonic acid (PFOS)	ND		950	480	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorooctanoic acid (PFOA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluoropentanesulfonic acid (PFPeS)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluoropentanoic acid (PFPeA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorotetradecanoic acid (PFTeDA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluorotridecanoic acid (PFTrDA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluoroundecanoic acid (PFUnA)	ND		950	240	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		950	95	ng/L		07/07/25 08:35	07/10/25 08:02	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		950	140	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		950	95	ng/L		07/07/25 08:35	07/10/25 08:02	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	950	140	ng/L		07/07/25 08:35	07/10/25 08:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		950	95	ng/L		07/07/25 08:35	07/10/25 08:02	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		950	95	ng/L		07/07/25 08:35	07/10/25 08:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		950	95	ng/L		07/07/25 08:35	07/10/25 08:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*72*		*19 - 191*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C2-6:2 FTS	*85*		*13 - 200*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C2-8:2 FTS	*97*		*10 - 200*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C2-PFTeDA	*70*		*10 - 186*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C3-HFPO-DA	*66*		*10 - 140*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C3-PFBS	*90*		*24 - 176*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C4-PFBA	*80*		*26 - 162*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C4-PFHpA	*89*		*10 - 193*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C5-PFPeA	*85*		*15 - 162*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C8-PFOA	*69*		*27 - 160*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C8-PFOS	*85*		*22 - 172*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
d3-NMeFOSAA	*78*		*10 - 198*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
d5-NEtFOSAA	*90*		*10 - 200*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
d7-N-MeFOSE-M	*63*		*10 - 181*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
d9-N-EtFOSE-M	*49*		*10 - 182*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C3-PFHxS	*90*		*11 - 180*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C5-PFHxA	*88*		*10 - 176*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C6-PFDA	*81*		*19 - 168*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
13C7-PFUnA	*96*		*10 - 182*	*07/07/25 08:35*	*07/10/25 08:02*	*1*
d3-NMePFOSA	*56*		*10 - 137*	*07/07/25 08:35*	*07/10/25 08:02*	*1*

Client: Hart & Hickman, PC
Project/Site: One Hour Martinizing (DC360006)

Job ID: 410-229649-1

Client Sample ID: DC360006-WW-POST
Date Collected: 06/24/25 09:20
Date Received: 06/26/25 10:15

Lab Sample ID: 410-229649-3
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	53		10 - 130	07/07/25 08:35	07/10/25 08:02	1
13C8-PFOSA	68		10 - 149	07/07/25 08:35	07/10/25 08:02	1
13C2-PFDoA	82		10 - 183	07/07/25 08:35	07/10/25 08:02	1
13C9-PFNA	74		10 - 198	07/07/25 08:35	07/10/25 08:02	1
13C-6:2 FTCA	68		10 - 185	07/07/25 08:35	07/10/25 08:02	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1400**	**B**	1000	500	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluoropentanoic acid (PFPeA)	**440**	**J B**	1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorohexanoic acid (PFHxA)	**870**	**J**	1000	500	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluoroheptanoic acid (PFHpA)	**1100**	**B**	1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorooctanoic acid (PFOA)	**820**	**J B**	1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorononanoic acid (PFNA)	**290**	**J B**	1000	100	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorodecanoic acid (PFDA)	**290**	**J B cn**	1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/11/25 07:30	07/17/25 15:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/11/25 07:30	07/17/25 15:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/11/25 07:30	07/17/25 15:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:12	1

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-WW-POST
Lab Sample ID: 410-229649-3
Date Collected: 06/24/25 09:20
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:12	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/11/25 07:30	07/17/25 15:12	1
6:2 FTCA	ND	*+	1000	350	ng/L		07/11/25 07:30	07/17/25 15:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 168*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C5 PFPeA	*108*		*15 - 189*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C5 PFHxA	*101*		*20 - 165*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C4 PFHpA	*105*		*33 - 166*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C8 PFOA	*94*		*40 - 154*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C9 PFNA	*108*		*39 - 162*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C6 PFDA	*99*		*41 - 153*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C7 PFUnA	*99*		*35 - 161*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C2-PFDoDA	*92*		*22 - 165*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C2 PFTeDA	*104*		*17 - 156*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C3 PFBS	*114*		*27 - 200*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C3 PFHxS	*105*		*39 - 164*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C8 PFOS	*103*		*44 - 153*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C8 FOSA	*74*		*11 - 149*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
d5-NEtFOSAA	*93*		*30 - 180*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
M2-6:2 FTS	*74*		*26 - 200*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
M2-8:2 FTS	*91*		*27 - 200*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C3 HFPO-DA	*89*		*11 - 166*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
d7-N-MeFOSE-M	*81*		*10 - 154*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
d9-N-EtFOSE-M	*78*		*10 - 146*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
d5-NEtPFOSA	*68*		*10 - 130*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
d3-NMePFOSA	*67*		*10 - 130*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C-6:2 FTCA	*56*		*15 - 182*	*07/11/25 07:30*	*07/17/25 15:12*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*94*		*26 - 150*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C4 PFOA	*94*		*45 - 147*	*07/11/25 07:30*	*07/17/25 15:12*	*1*
13C2 PFUnA	*86*		*11 - 187*	*07/11/25 07:30*	*07/17/25 15:12*	*1*

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-MIST-PRE
Lab Sample ID: 410-229649-4
Date Collected: 06/24/25 09:25
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		07/07/25 08:35	07/10/25 08:15	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		07/07/25 08:35	07/10/25 08:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		07/07/25 08:35	07/10/25 08:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	490	ng/L		07/07/25 08:35	07/10/25 08:15	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		07/07/25 08:35	07/10/25 08:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		970	290	ng/L		07/07/25 08:35	07/10/25 08:15	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		07/07/25 08:35	07/10/25 08:15	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorobutanoic acid (PFBA)	ND		2400	970	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorodecanoic acid (PFDA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorododecanoic acid (PFDoA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluoroheptanoic acid (PFHpA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorohexanesulfonic acid (PFHxS)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorohexanoic acid (PFHxA)	ND		970	440	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorononanesulfonic acid (PFNS)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorononanoic acid (PFNA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorooctanesulfonamide (PFOSA)	ND		970	340	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorooctanesulfonic acid (PFOS)	ND		970	490	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorooctanoic acid (PFOA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluoropentanesulfonic acid (PFPeS)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluoropentanoic acid (PFPeA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorotetradecanoic acid (PFTeDA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluorotridecanoic acid (PFTrDA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluoroundecanoic acid (PFUnA)	ND		970	240	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		970	97	ng/L		07/07/25 08:35	07/10/25 08:15	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		970	150	ng/L		07/07/25 08:35	07/10/25 08:15	1

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-MIST-PRE
Lab Sample ID: 410-229649-4
Date Collected: 06/24/25 09:25
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		970	97	ng/L		07/07/25 08:35	07/10/25 08:15	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	970	150	ng/L		07/07/25 08:35	07/10/25 08:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		970	97	ng/L		07/07/25 08:35	07/10/25 08:15	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		970	97	ng/L		07/07/25 08:35	07/10/25 08:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		970	97	ng/L		07/07/25 08:35	07/10/25 08:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*77*		*19 - 191*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C2-6:2 FTS	*82*		*13 - 200*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C2-8:2 FTS	*104*		*10 - 200*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C2-PFTeDA	*78*		*10 - 186*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C3-HFPO-DA	*70*		*10 - 140*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C3-PFBS	*91*		*24 - 176*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C4-PFBA	*80*		*26 - 162*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C4-PFHpA	*84*		*10 - 193*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C5-PFPeA	*86*		*15 - 162*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C8-PFOA	*73*		*27 - 160*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C8-PFOS	*86*		*22 - 172*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
d3-NMeFOSAA	*85*		*10 - 198*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
d5-NEtFOSAA	*85*		*10 - 200*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
d7-N-MeFOSE-M	*67*		*10 - 181*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
d9-N-EtFOSE-M	*55*		*10 - 182*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C3-PFHxS	*89*		*11 - 180*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C5-PFHxA	*89*		*10 - 176*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C6-PFDA	*82*		*19 - 168*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C7-PFUnA	*97*		*10 - 182*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
d3-NMePFOSA	*57*		*10 - 137*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
d5-NEtPFOSA	*54*		*10 - 130*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C8-PFOSA	*66*		*10 - 149*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C2-PFDoA	*90*		*10 - 183*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C9-PFNA	*75*		*10 - 198*	*07/07/25 08:35*	*07/10/25 08:15*	*1*
13C-6:2 FTCA	*71*		*10 - 185*	*07/07/25 08:35*	*07/10/25 08:15*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluoropentanoic acid (PFPeA)	**220**	**J B**	1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluoroheptanoic acid (PFHpA)	**460**	**J B**	1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorooctanoic acid (PFOA)	**350**	**J B**	1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorononanoic acid (PFNA)	**110**	**J B**	1000	100	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorodecanoic acid (PFDA)	**260**	**J B cn**	1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-MIST-PRE
Lab Sample ID: 410-229649-4
Date Collected: 06/24/25 09:25
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:26	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/11/25 07:30	07/17/25 15:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/11/25 07:30	07/17/25 15:26	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:26	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:26	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 15:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/11/25 07:30	07/17/25 15:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:26	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:26	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 15:26	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:26	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 15:26	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/11/25 07:30	07/17/25 15:26	1
6:2 FTCA	ND	*+	1000	350	ng/L		07/11/25 07:30	07/17/25 15:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99*		*10 - 168*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C5 PFPeA	*109*		*15 - 189*	*07/11/25 07:30*	*07/17/25 15:26*	*1*

Client Sample ID: DC360006-MIST-PRE
Lab Sample ID: 410-229649-4

Date Collected: 06/24/25 09:25
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C5 PFHxA	*96*		*20 - 165*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C4 PFHpA	*98*		*33 - 166*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C8 PFOA	*91*		*40 - 154*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C9 PFNA	*104*		*39 - 162*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C6 PFDA	*96*		*41 - 153*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C7 PFUnA	*100*		*35 - 161*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C2-PFDoDA	*90*		*22 - 165*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C2 PFTeDA	*92*		*17 - 156*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C3 PFBS	*114*		*27 - 200*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C3 PFHxS	*100*		*39 - 164*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C8 PFOS	*100*		*44 - 153*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C8 FOSA	*75*		*11 - 149*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
d5-NEtFOSAA	*104*		*30 - 180*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
M2-6:2 FTS	*80*		*26 - 200*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
M2-8:2 FTS	*106*		*27 - 200*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C3 HFPO-DA	*89*		*11 - 166*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
d7-N-MeFOSE-M	*71*		*10 - 154*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
d9-N-EtFOSE-M	*71*		*10 - 146*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
d5-NEtPFOSA	*57*		*10 - 130*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
d3-NMePFOSA	*54*		*10 - 130*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C-6:2 FTCA	*59*		*15 - 182*	*07/11/25 07:30*	*07/17/25 15:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*92*		*26 - 150*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C4 PFOA	*89*		*45 - 147*	*07/11/25 07:30*	*07/17/25 15:26*	*1*
13C2 PFUnA	*86*		*11 - 187*	*07/11/25 07:30*	*07/17/25 15:26*	*1*

Client Sample ID: DC360006-MW-8
Lab Sample ID: 410-229649-5

Date Collected: 06/18/25 11:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.4	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluoropentanoic acid (PFPeA)	**17**		9.9	3.0	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorohexanoic acid (PFHxA)	**22**		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluoroheptanoic acid (PFHpA)	**41**		9.9	4.0	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorooctanoic acid (PFOA)	**32**		9.9	4.4	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorononanoic acid (PFNA)	**12**		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorodecanoic acid (PFDA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluoroundecanoic acid (PFUnA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorododecanoic acid (PFDoA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorotridecanoic acid (PFTrDA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorotetradecanoic acid (PFTeDA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorobutanesulfonic acid (PFBS)	**5.7**	**J**	9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluoropentanesulfonic acid (PFPeS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorohexanesulfonic acid (PFHxS)	ND		9.9	4.0	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-MW-8
Lab Sample ID: 410-229649-5
Date Collected: 06/18/25 11:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		9.9	6.4	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorononanesulfonic acid (PFNS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorododecanesulfonic acid (PFDoS)	ND		9.9	3.0	ng/L		07/28/25 12:24	08/04/25 15:07	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	4.9	ng/L		07/28/25 12:24	08/04/25 15:07	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	4.9	ng/L		07/28/25 12:24	08/04/25 15:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	4.9	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		49	12	ng/L		07/28/25 12:24	08/04/25 15:07	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		49	20	ng/L		07/28/25 12:24	08/04/25 15:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		9.9	6.9	ng/L		07/28/25 12:24	08/04/25 15:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	4.9	ng/L		07/28/25 12:24	08/04/25 15:07	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		49	14	ng/L		07/28/25 12:24	08/04/25 15:07	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		49	12	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*84.0*		*10 - 130*	*07/28/25 12:24*	*08/04/25 15:07*	*1*
13C5 PFPeA	*82.8*		*35 - 150*	*07/28/25 12:24*	*08/04/25 15:07*	*1*
13C5 PFHxA	*89.0*		*55 - 150*	*07/28/25 12:24*	*08/04/25 15:07*	*1*
13C4 PFHpA	*92.7*		*55 - 150*	*07/28/25 12:24*	*08/04/25 15:07*	*1*
13C9 PFNA	*88.1*		*55 - 140*	*07/28/25 12:24*	*08/04/25 15:07*	*1*
13C6 PFDA	*97.9*		*50 - 140*	*07/28/25 12:24*	*08/04/25 15:07*	*1*
13C7 PFUnA	*101*		*30 - 140*	*07/28/25 12:24*	*08/04/25 15:07*	*1*

Client Sample ID: DC360006-MW-8
Lab Sample ID: 410-229649-5

Date Collected: 06/18/25 11:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	82.0		10 - 130	07/28/25 12:24	08/04/25 15:07	1
13C3 PFBS	89.9		55 - 150	07/28/25 12:24	08/04/25 15:07	1
13C3 PFHxS	94.6		55 - 150	07/28/25 12:24	08/04/25 15:07	1
13C8 PFOS	94.7		45 - 140	07/28/25 12:24	08/04/25 15:07	1
d3-NMeFOSAA	96.3		45 - 200	07/28/25 12:24	08/04/25 15:07	1
d5-NEtFOSAA	99.8		10 - 200	07/28/25 12:24	08/04/25 15:07	1
13C2 PFDoA	98.7		10 - 150	07/28/25 12:24	08/04/25 15:07	1
13C2 4:2 FTS	87.2		60 - 200	07/28/25 12:24	08/04/25 15:07	1
13C2 6:2 FTS	95.2		60 - 200	07/28/25 12:24	08/04/25 15:07	1
13C2 8:2 FTS	91.7		50 - 200	07/28/25 12:24	08/04/25 15:07	1
13C3 HFPO-DA	72.8		25 - 160	07/28/25 12:24	08/04/25 15:07	1
d7-N-MeFOSE-M	78.3		10 - 150	07/28/25 12:24	08/04/25 15:07	1
d9-N-EtFOSE-M	73.0		10 - 150	07/28/25 12:24	08/04/25 15:07	1
d5-NEtPFOSA	64.6		10 - 130	07/28/25 12:24	08/04/25 15:07	1
d3-NMePFOSA	68.6		15 - 130	07/28/25 12:24	08/04/25 15:07	1
13C8 FOSA	0.528		0 - 10	07/28/25 12:24	08/04/25 15:07	1
13C2 PFOA	84.3		40 - 130	07/28/25 12:24	08/04/25 15:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	78		50 - 150	07/28/25 12:24	08/04/25 15:07	1
M3PFPeA	73		50 - 150	07/28/25 12:24	08/04/25 15:07	1

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.3**		3.1	0.85	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluoropentanoic acid (PFPeA)	**3.4**		1.6	0.47	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorohexanoic acid (PFHxA)	**3.4**		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluoroheptanoic acid (PFHpA)	**5.5**		1.6	0.62	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorooctanoic acid (PFOA)	**2.5**		1.6	0.70	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorohexanesulfonic acid (PFHxS)	**3.7**		1.6	0.62	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		07/09/25 15:04	07/10/25 20:28	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.78	ng/L		07/09/25 15:04	07/10/25 20:28	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.78	ng/L		07/09/25 15:04	07/10/25 20:28	1

Client: Hart & Hickman, PC
Project/Site: One Hour Martinizing (DC360006)

Job ID: 410-229649-1

Client Sample ID: DC360006-MW-8
Date Collected: 06/18/25 11:45
Date Received: 06/26/25 10:15

Lab Sample ID: 410-229649-5
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.78	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	1.9	ng/L		07/09/25 15:04	07/10/25 20:28	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	3.1	ng/L		07/09/25 15:04	07/10/25 20:28	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/09/25 15:04	07/10/25 20:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		07/09/25 15:04	07/10/25 20:28	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.78	ng/L		07/09/25 15:04	07/10/25 20:28	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.8	2.2	ng/L		07/09/25 15:04	07/10/25 20:28	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	1.9	ng/L		07/09/25 15:04	07/10/25 20:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*103*		*5 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C5 PFPeA	*108*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C5 PFHxA	*92.0*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C4 PFHpA	*82.1*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C8 PFOA	*97.7*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C9 PFNA	*94.5*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C6 PFDA	*93.1*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C7 PFUnA	*89.1*		*30 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C2 PFTeDA	*86.6*		*10 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C3 PFBS	*104*		*40 - 135*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C3 PFHxS	*107*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C8 PFOS	*103*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C8 FOSA	*86.9*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
d3-NMeFOSAA	*84.9*		*40 - 170*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
d5-NEtFOSAA	*83.0*		*25 - 135*	*07/09/25 15:04*	*07/10/25 20:28*	*1*
13C2 4:2 FTS	*103*		*40 - 200*	*07/09/25 15:04*	*07/10/25 20:28*	*1*

Client Sample ID: DC360006-MW-8
Lab Sample ID: 410-229649-5
Date Collected: 06/18/25 11:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 6:2 FTS	108		40 - 200	07/09/25 15:04	07/10/25 20:28	1
13C2 8:2 FTS	96.1		40 - 300	07/09/25 15:04	07/10/25 20:28	1
13C3 HFPO-DA	87.2		40 - 130	07/09/25 15:04	07/10/25 20:28	1
d7-N-MeFOSE-M	73.7		10 - 130	07/09/25 15:04	07/10/25 20:28	1
d9-N-EtFOSE-M	70.2		10 - 130	07/09/25 15:04	07/10/25 20:28	1
d5-NEtPFOSA	65.0		10 - 130	07/09/25 15:04	07/10/25 20:28	1
d3-NMePFOSA	69.3		10 - 130	07/09/25 15:04	07/10/25 20:28	1
13C2 PFDoA	87.5		10 - 130	07/09/25 15:04	07/10/25 20:28	1

Client Sample ID: DC360006-MW-2S
Lab Sample ID: 410-229649-6
Date Collected: 06/18/25 12:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**490**		20	5.4	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluoropentanoic acid (PFPeA)	**880**		9.9	3.0	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorohexanoic acid (PFHxA)	**430**		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluoroheptanoic acid (PFHpA)	**130**		9.9	4.0	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorooctanoic acid (PFOA)	**67**		9.9	4.4	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorononanoic acid (PFNA)	**12**		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorodecanoic acid (PFDA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluoroundecanoic acid (PFUnA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorododecanoic acid (PFDoA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorotridecanoic acid (PFTrDA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorotetradecanoic acid (PFTeDA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorobutanesulfonic acid (PFBS)	**340**		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluoropentanesulfonic acid (PFPeS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorohexanesulfonic acid (PFHxS)	**10**		9.9	4.0	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		9.9	6.4	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorononanesulfonic acid (PFNS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorododecanesulfonic acid (PFDoS)	ND		9.9	3.0	ng/L		07/28/25 12:24	08/04/25 15:21	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	4.9	ng/L		07/28/25 12:24	08/04/25 15:21	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	4.9	ng/L		07/28/25 12:24	08/04/25 15:21	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	4.9	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-MW-2S
Lab Sample ID: 410-229649-6
Date Collected: 06/18/25 12:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		49	12	ng/L		07/28/25 12:24	08/04/25 15:21	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		49	20	ng/L		07/28/25 12:24	08/04/25 15:21	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		9.9	6.9	ng/L		07/28/25 12:24	08/04/25 15:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	4.9	ng/L		07/28/25 12:24	08/04/25 15:21	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		49	14	ng/L		07/28/25 12:24	08/04/25 15:21	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		49	12	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		9.9	2.5	ng/L		07/28/25 12:24	08/04/25 15:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*83.4*		*10 - 130*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C5 PFPeA	*86.2*		*35 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C5 PFHxA	*91.9*		*55 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C4 PFHpA	*88.3*		*55 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C9 PFNA	*83.2*		*55 - 140*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C6 PFDA	*81.4*		*50 - 140*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C7 PFUnA	*85.4*		*30 - 140*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C2 PFTeDA	*78.2*		*10 - 130*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C3 PFBS	*91.1*		*55 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C3 PFHxS	*88.6*		*55 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C8 PFOS	*92.8*		*45 - 140*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
d3-NMeFOSAA	*99.7*		*45 - 200*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
d5-NEtFOSAA	*101*		*10 - 200*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C2 PFDoA	*85.4*		*10 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C2 4:2 FTS	*85.4*		*60 - 200*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C2 6:2 FTS	*94.9*		*60 - 200*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C2 8:2 FTS	*87.9*		*50 - 200*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C3 HFPO-DA	*75.4*		*25 - 160*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
d7-N-MeFOSE-M	*72.0*		*10 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
d9-N-EtFOSE-M	*72.4*		*10 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
d5-NEtPFOSA	*68.4*		*10 - 130*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
d3-NMePFOSA	*71.6*		*15 - 130*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C8 FOSA	*0.607*		*0 - 10*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
13C2 PFOA	*88.1*		*40 - 130*	*07/28/25 12:24*	*08/04/25 15:21*	*1*

Client Sample ID: DC360006-MW-2S
Lab Sample ID: 410-229649-6
Date Collected: 06/18/25 12:45
Matrix: Water
Date Received: 06/26/25 10:15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA	*66*		*50 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*
M3PFPeA	*76*		*50 - 150*	*07/28/25 12:24*	*08/04/25 15:21*	*1*

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**140**		3.3	0.91	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluoropentanoic acid (PFPeA)	**710**		1.7	0.50	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorohexanoic acid (PFHxA)	**390**		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluoroheptanoic acid (PFHpA)	**83**		1.7	0.66	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorooctanoic acid (PFOA)	**33**		1.7	0.75	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorobutanesulfonic acid (PFBS)	**280**		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluoropentanesulfonic acid (PFPeS)	**2.9**		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorohexanesulfonic acid (PFHxS)	**9.1**		1.7	0.66	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.1	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.50	ng/L		07/09/25 15:04	07/11/25 19:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	0.83	ng/L		07/09/25 15:04	07/11/25 19:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	0.83	ng/L		07/09/25 15:04	07/11/25 19:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	0.83	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.3	2.1	ng/L		07/09/25 15:04	07/11/25 19:49	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.3	3.3	ng/L		07/09/25 15:04	07/11/25 19:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/09/25 15:04	07/11/25 19:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1

Client Sample ID: DC360006-MW-2S
Lab Sample ID: 410-229649-6

Date Collected: 06/18/25 12:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.41	ng/L		07/09/25 15:04	07/11/25 19:49	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	0.83	ng/L		07/09/25 15:04	07/11/25 19:49	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.3	2.3	ng/L		07/09/25 15:04	07/11/25 19:49	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.3	2.1	ng/L		07/09/25 15:04	07/11/25 19:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.9*		*5 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C5 PFPeA	*105*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C5 PFHxA	*96.8*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C4 PFHpA	*106*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C8 PFOA	*102*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C9 PFNA	*103*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C6 PFDA	*98.2*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C7 PFUnA	*93.9*		*30 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C2 PFTeDA	*92.6*		*10 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C3 PFBS	*89.1*		*40 - 135*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C3 PFHxS	*99.9*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C8 PFOS	*99.5*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C8 FOSA	*74.7*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
d3-NMeFOSAA	*70.6*		*40 - 170*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
d5-NEtFOSAA	*75.3*		*25 - 135*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C2 4:2 FTS	*91.9*		*40 - 200*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C2 6:2 FTS	*98.7*		*40 - 200*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C2 8:2 FTS	*88.8*		*40 - 300*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C3 HFPO-DA	*94.3*		*40 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
d7-N-MeFOSE-M	*77.7*		*10 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
d9-N-EtFOSE-M	*75.1*		*10 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
d5-NEtPFOSA	*69.6*		*10 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
d3-NMePFOSA	*69.0*		*10 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*
13C2 PFDoA	*91.2*		*10 - 130*	*07/09/25 15:04*	*07/11/25 19:49*	*1*

Client Sample ID: DC360006-FB
Lab Sample ID: 410-229649-7

Date Collected: 06/18/25 13:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.87	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.48	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.64	ng/L		07/04/25 06:18	07/08/25 11:50	1

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-FB
Lab Sample ID: 410-229649-7
Date Collected: 06/18/25 13:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	ND		1.6	0.71	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.64	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.48	ng/L		07/04/25 06:18	07/08/25 11:50	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.79	ng/L		07/04/25 06:18	07/08/25 11:50	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.79	ng/L		07/04/25 06:18	07/08/25 11:50	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.79	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.9	2.0	ng/L		07/04/25 06:18	07/08/25 11:50	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.9	3.2	ng/L		07/04/25 06:18	07/08/25 11:50	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/04/25 06:18	07/08/25 11:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 11:50	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.79	ng/L		07/04/25 06:18	07/08/25 11:50	1

Client Sample ID: DC360006-FB
Lab Sample ID: 410-229649-7
Date Collected: 06/18/25 13:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.9	2.2	ng/L		07/04/25 06:18	07/08/25 11:50	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.9	2.0	ng/L		07/04/25 06:18	07/08/25 11:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*5 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C5 PFPeA	*103*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C5 PFHxA	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C4 PFHpA	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C8 PFOA	*97.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C9 PFNA	*100*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C6 PFDA	*95.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C7 PFUnA	*92.5*		*30 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C2 PFTeDA	*93.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C3 PFBS	*91.5*		*40 - 135*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C3 PFHxS	*98.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C8 PFOS	*95.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C8 FOSA	*84.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
d3-NMeFOSAA	*83.8*		*40 - 170*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
d5-NEtFOSAA	*89.3*		*25 - 135*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C2 4:2 FTS	*91.1*		*40 - 200*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C2 6:2 FTS	*97.6*		*40 - 200*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C2 8:2 FTS	*92.0*		*40 - 300*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C3 HFPO-DA	*103*		*40 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
d7-N-MeFOSE-M	*68.8*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
d9-N-EtFOSE-M	*67.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
d5-NEtPFOSA	*79.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
d3-NMePFOSA	*79.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*
13C2 PFDoA	*89.9*		*10 - 130*	*07/04/25 06:18*	*07/08/25 11:50*	*1*

Client Sample ID: DC360006-EB
Lab Sample ID: 410-229649-8
Date Collected: 06/18/25 13:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.89	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.49	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.65	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.73	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-EB
Lab Sample ID: 410-229649-8
Date Collected: 06/18/25 13:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.1	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.49	ng/L		07/04/25 06:18	07/08/25 12:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.81	ng/L		07/04/25 06:18	07/08/25 12:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.81	ng/L		07/04/25 06:18	07/08/25 12:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.81	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.1	2.0	ng/L		07/04/25 06:18	07/08/25 12:04	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.1	3.2	ng/L		07/04/25 06:18	07/08/25 12:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/04/25 06:18	07/08/25 12:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.41	ng/L		07/04/25 06:18	07/08/25 12:04	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.81	ng/L		07/04/25 06:18	07/08/25 12:04	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.1	2.3	ng/L		07/04/25 06:18	07/08/25 12:04	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.1	2.0	ng/L		07/04/25 06:18	07/08/25 12:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*105*		*5 - 130*	*07/04/25 06:18*	*07/08/25 12:04*	*1*
13C5 PFPeA	*106*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:04*	*1*
13C5 PFHxA	*105*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:04*	*1*
13C4 PFHpA	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:04*	*1*
13C8 PFOA	*102*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:04*	*1*

Client Sample ID: DC360006-EB
Lab Sample ID: 410-229649-8
Date Collected: 06/18/25 13:45
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C9 PFNA	99.0		40 - 130	07/04/25 06:18	07/08/25 12:04	1
13C6 PFDA	105		40 - 130	07/04/25 06:18	07/08/25 12:04	1
13C7 PFUnA	96.6		30 - 130	07/04/25 06:18	07/08/25 12:04	1
13C2 PFTeDA	92.0		10 - 130	07/04/25 06:18	07/08/25 12:04	1
13C3 PFBS	102		40 - 135	07/04/25 06:18	07/08/25 12:04	1
13C3 PFHxS	95.7		40 - 130	07/04/25 06:18	07/08/25 12:04	1
13C8 PFOS	98.8		40 - 130	07/04/25 06:18	07/08/25 12:04	1
13C8 FOSA	87.6		40 - 130	07/04/25 06:18	07/08/25 12:04	1
d3-NMeFOSAA	88.8		40 - 170	07/04/25 06:18	07/08/25 12:04	1
d5-NEtFOSAA	83.4		25 - 135	07/04/25 06:18	07/08/25 12:04	1
13C2 4:2 FTS	101		40 - 200	07/04/25 06:18	07/08/25 12:04	1
13C2 6:2 FTS	103		40 - 200	07/04/25 06:18	07/08/25 12:04	1
13C2 8:2 FTS	94.2		40 - 300	07/04/25 06:18	07/08/25 12:04	1
13C3 HFPO-DA	106		40 - 130	07/04/25 06:18	07/08/25 12:04	1
d7-N-MeFOSE-M	78.6		10 - 130	07/04/25 06:18	07/08/25 12:04	1
d9-N-EtFOSE-M	69.5		10 - 130	07/04/25 06:18	07/08/25 12:04	1
d5-NEtPFOSA	78.0		10 - 130	07/04/25 06:18	07/08/25 12:04	1
d3-NMePFOSA	81.8		10 - 130	07/04/25 06:18	07/08/25 12:04	1
13C2 PFDoA	92.6		10 - 130	07/04/25 06:18	07/08/25 12:04	1

Client Sample ID: DC360006-DUP-1
Lab Sample ID: 410-229649-9
Date Collected: 06/18/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**150**		3.2	0.88	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluoropentanoic acid (PFPeA)	**790**		1.6	0.48	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorohexanoic acid (PFHxA)	**400**		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluoroheptanoic acid (PFHpA)	**80**		1.6	0.64	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorooctanoic acid (PFOA)	**37**		1.6	0.72	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorobutanesulfonic acid (PFBS)	**360**		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorohexanesulfonic acid (PFHxS)	**11**		1.6	0.64	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.48	ng/L		07/04/25 06:18	07/08/25 12:17	1

Client Sample ID: DC360006-DUP-1
Lab Sample ID: 410-229649-9
Date Collected: 06/18/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.80	ng/L		07/04/25 06:18	07/08/25 12:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.80	ng/L		07/04/25 06:18	07/08/25 12:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.80	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.0	2.0	ng/L		07/04/25 06:18	07/08/25 12:17	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.0	3.2	ng/L		07/04/25 06:18	07/08/25 12:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/04/25 06:18	07/08/25 12:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.40	ng/L		07/04/25 06:18	07/08/25 12:17	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.80	ng/L		07/04/25 06:18	07/08/25 12:17	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.0	2.2	ng/L		07/04/25 06:18	07/08/25 12:17	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.0	2.0	ng/L		07/04/25 06:18	07/08/25 12:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.4*		*5 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C5 PFPeA	*90.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C5 PFHxA	*85.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C4 PFHpA	*82.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C8 PFOA	*90.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C9 PFNA	*90.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C6 PFDA	*84.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C7 PFUnA	*84.9*		*30 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C2 PFTeDA	*87.8*		*10 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C3 PFBS	*86.3*		*40 - 135*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C3 PFHxS	*86.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*
13C8 PFOS	*86.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 12:17*	*1*

Client Sample ID: DC360006-DUP-1
Lab Sample ID: 410-229649-9

Date Collected: 06/18/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	80.5		40 - 130	07/04/25 06:18	07/08/25 12:17	1
d3-NMeFOSAA	75.9		40 - 170	07/04/25 06:18	07/08/25 12:17	1
d5-NEtFOSAA	75.7		25 - 135	07/04/25 06:18	07/08/25 12:17	1
13C2 4:2 FTS	84.1		40 - 200	07/04/25 06:18	07/08/25 12:17	1
13C2 6:2 FTS	87.7		40 - 200	07/04/25 06:18	07/08/25 12:17	1
13C2 8:2 FTS	80.5		40 - 300	07/04/25 06:18	07/08/25 12:17	1
13C3 HFPO-DA	88.1		40 - 130	07/04/25 06:18	07/08/25 12:17	1
d7-N-MeFOSE-M	65.6		10 - 130	07/04/25 06:18	07/08/25 12:17	1
d9-N-EtFOSE-M	60.7		10 - 130	07/04/25 06:18	07/08/25 12:17	1
d5-NEtPFOSA	70.2		10 - 130	07/04/25 06:18	07/08/25 12:17	1
d3-NMePFOSA	72.0		10 - 130	07/04/25 06:18	07/08/25 12:17	1
13C2 PFDoA	81.1		10 - 130	07/04/25 06:18	07/08/25 12:17	1

Client Sample ID: DC360006-DUP-2
Lab Sample ID: 410-229649-10

Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		07/07/25 08:35	07/10/25 08:29	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 08:29	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 08:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/07/25 08:35	07/10/25 08:29	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 08:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		990	300	ng/L		07/07/25 08:35	07/10/25 08:29	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 08:29	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorobutanesulfonic acid (PFBS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorobutanoic acid (PFBA)	ND		2500	990	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorodecanesulfonic acid (PFDS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorodecanoic acid (PFDA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorododecanoic acid (PFDoA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1

Client: Hart & Hickman, PC
Project/Site: One Hour Martinizing (DC360006)

Job ID: 410-229649-1

Client Sample ID: DC360006-DUP-2
Date Collected: 06/24/25 00:00
Date Received: 06/26/25 10:15

Lab Sample ID: 410-229649-10
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorohexanoic acid (PFHxA)	ND		990	450	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorononanesulfonic acid (PFNS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorononanoic acid (PFNA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorooctanesulfonamide (PFOSA)	ND		990	350	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorooctanesulfonic acid (PFOS)	ND		990	500	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorooctanoic acid (PFOA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluoropentanesulfonic acid (PFPeS)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluoropentanoic acid (PFPeA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorotetradecanoic acid (PFTeDA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluorotridecanoic acid (PFTrDA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluoroundecanoic acid (PFUnA)	ND		990	250	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 08:29	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		990	150	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 08:29	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	990	150	ng/L		07/07/25 08:35	07/10/25 08:29	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 08:29	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 08:29	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		990	99	ng/L		07/07/25 08:35	07/10/25 08:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*71*		*19 - 191*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C2-6:2 FTS	*82*		*13 - 200*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C2-8:2 FTS	*90*		*10 - 200*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C2-PFTeDA	*65*		*10 - 186*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C3-HFPO-DA	*66*		*10 - 140*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C3-PFBS	*94*		*24 - 176*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C4-PFBA	*78*		*26 - 162*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C4-PFHpA	*85*		*10 - 193*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C5-PFPeA	*89*		*15 - 162*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C8-PFOA	*66*		*27 - 160*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C8-PFOS	*80*		*22 - 172*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
d3-NMeFOSAA	*73*		*10 - 198*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
d5-NEtFOSAA	*80*		*10 - 200*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
d7-N-MeFOSE-M	*57*		*10 - 181*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
d9-N-EtFOSE-M	*50*		*10 - 182*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C3-PFHxS	*85*		*11 - 180*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C5-PFHxA	*84*		*10 - 176*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C6-PFDA	*78*		*19 - 168*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C7-PFUnA	*88*		*10 - 182*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
d3-NMePFOSA	*49*		*10 - 137*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
d5-NEtPFOSA	*48*		*10 - 130*	*07/07/25 08:35*	*07/10/25 08:29*	*1*
13C8-PFOSA	*62*		*10 - 149*	*07/07/25 08:35*	*07/10/25 08:29*	*1*

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-DUP-2
Lab Sample ID: 410-229649-10
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-PFDoA	77		10 - 183	07/07/25 08:35	07/10/25 08:29	1
13C9-PFNA	69		10 - 198	07/07/25 08:35	07/10/25 08:29	1
13C-6:2 FTCA	66		10 - 185	07/07/25 08:35	07/10/25 08:29	1

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: One Hour Martinizing (DC360006)

Job ID: 410-229649-1

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water — **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)	
		PFUnA	C3PFPeA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
410-229649-5	DC360006-MW-8	78	73
410-229649-6	DC360006-MW-2S	66	76

Surrogate Legend

PFUnA = 13C2 PFUnA
C3PFPeA = M3PFPeA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water — **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)	
		PFUnA	C3PFPeA
Lab Sample ID	Client Sample ID		
MB 410-677134/1-A	Method Blank		

Surrogate Legend

PFUnA = 13C2 PFUnA
C3PFPeA = M3PFPeA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID			
MB 410-672633/2-B	Method Blank			

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Solid — **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID	(10-161)	(38-132)	(10-162)
410-229649-1	DC360006-DET	69	84	22

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID			
MB 410-669876/2-B	Method Blank			

Surrogate Legend

Surrogate Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID	(26-150)	(45-147)	(11-187)
410-229649-2	DC360006-WW-PRE	67	71	66
410-229649-3	DC360006-WW-POST	94	94	86
410-229649-4	DC360006-MIST-PRE	92	89	86

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Post-Treatment

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-130)	PFPeA (35-150)	13C5PHA (55-150)	C4PFHA (55-150)	C9PFNA (55-140)	C6PFDA (50-140)	13C7PUA (30-140)	PFTDA (10-130)
410-229649-5	DC360006-MW-8	84.0	82.8	89.0	92.7	88.1	97.9	101	82.0
410-229649-6	DC360006-MW-2S	83.4	86.2	91.9	88.3	83.2	81.4	85.4	78.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	C3PFBS (55-150)	C3PFHS (55-150)	C8PFOS (45-140)	d3NMFOS (45-200)	d5NEFOS (10-200)	PFDoA (10-150)	M242FTS (60-200)	M262FTS (60-200)
410-229649-5	DC360006-MW-8	89.9	94.6	94.7	96.3	99.8	98.7	87.2	95.2
410-229649-6	DC360006-MW-2S	91.1	88.6	92.8	99.7	101	85.4	85.4	94.9

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (50-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (15-130)	PFOSA (0-10)	13PFOA (40-130)
410-229649-5	DC360006-MW-8	91.7	72.8	78.3	73.0	64.6	68.6	0.528	84.3
410-229649-6	DC360006-MW-2S	87.9	75.4	72.0	72.4	68.4	71.6	0.607	88.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFOSA = 13C8 FOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Post-Treatment

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-130)	PFPeA (40-150)	13C5PHA (40-150)	C4PFHA (40-150)	C9PFNA (30-140)	C6PFDA (20-140)	13C7PUA (20-140)	PFTDA (10-130)
LCS 410-677134/2-A	Lab Control Sample	87.1	84.8	90.6	95.8	98.0	82.4	92.5	63.9
LCSD 410-677134/3-A	Lab Control Sample Dup	89.0	91.7	100	102	98.2	99.2	98.0	81.6
LLCS 410-677134/4-A	Lab Control Sample	70.3	66.6	69.7	68.6	64.0	65.9	75.5	64.5

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Post-Treatment

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	C3PFBS (25-150)	C3PFHS (25-150)	C8PFOS (20-140)	d3NMFOS (10-200)	d5NEFOS (10-200)	PFDoA (10-150)	M242FTS (25-200)	M262FTS (25-200)
LCS 410-677134/2-A	Lab Control Sample	94.5	93.0	95.9	98.5	98.7	88.2	89.8	95.8
LCSD 410-677134/3-A	Lab Control Sample Dup	94.0	94.0	97.9	104	103	82.9	90.1	98.9
LLCS 410-677134/4-A	Lab Control Sample	69.4	67.3	69.4	81.9	82.0	80.7	67.3	70.7

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	M282FTS (25-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (10-130)	13PFOA (40-130)
LCS 410-677134/2-A	Lab Control Sample	97.3	76.7	78.3	72.9	66.3	67.9	85.9
LCSD 410-677134/3-A	Lab Control Sample Dup	95.8	83.0	84.8	78.2	65.3	68.9	92.3
LLCS 410-677134/4-A	Lab Control Sample	67.9	59.4	63.0	66.9	51.5	50.0	66.0

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water
Prep Type: Post-Treatment

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-130)	PFPeA (35-150)	13C5PHA (55-150)	C4PFHA (55-150)	C9PFNA (55-140)	C6PFDA (50-140)	13C7PUA (30-140)	PFTDA (10-130)
MB 410-677134/1-A	Method Blank	90.8	89.3	94.2	96.3	87.6	98.9	102	82.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	C3PFBS (55-150)	C3PFHS (55-150)	C8PFOS (45-140)	d3NMFOS (45-200)	d5NEFOS (10-200)	PFDoA (10-150)	M242FTS (60-200)	M262FTS (60-200)
MB 410-677134/1-A	Method Blank	98.2	96.1	102	107	106	86.0	94.0	102

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (50-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (15-130)	PFOSA	13PFOA (40-130)
MB 410-677134/1-A	Method Blank	94.7	77.9	73.7	66.3	71.3	76.4		89.1

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFOSA = 13C8 FOSA
13PFOA = 13C2 PFOA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-229649-5	DC360006-MW-8	103	108	92.0	82.1	97.7	94.5	93.1	89.1
410-229649-6	DC360006-MW-2S	94.9	105	96.8	106	102	103	98.2	93.9
410-229649-7	DC360006-FB	101	103	101	101	97.9	100	95.5	92.5
410-229649-8	DC360006-EB	105	106	105	101	102	99.0	105	96.6
410-229649-9	DC360006-DUP-1	92.4	90.4	85.7	82.5	90.4	90.2	84.9	84.9
LCS 410-667147/15-A	Lab Control Sample	103	103	95.0	98.9	97.4	96.7	93.1	96.3
LCS 410-668972/14-A	Lab Control Sample	105	114	99.2	92.4	92.9	97.1	89.5	85.1
LCSD 410-667147/17-A	Lab Control Sample Dup	100	110	105	106	109	107	104	101
LCSD 410-668972/15-A	Lab Control Sample Dup	105	126	107	101	90.2	99.6	84.7	68.3
LLCS 410-667147/16-A	Lab Control Sample	105	104	95.8	103	97.5	100	98.7	95.8
LLCS 410-668972/16-A	Lab Control Sample	89.2	104	88.4	82.9	80.5	78.9	71.1	65.5
MB 410-667147/14-A	Method Blank	99.1	99.6	87.5	78.1	77.2	75.3	73.7	69.1
MB 410-668972/13-A	Method Blank	99.2	109	107	102	96.8	100	88.8	82.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-229649-5	DC360006-MW-8	86.6	104	107	103	86.9	84.9	83.0	103
410-229649-6	DC360006-MW-2S	92.6	89.1	99.9	99.5	74.7	70.6	75.3	91.9
410-229649-7	DC360006-FB	93.2	91.5	98.1	95.2	84.1	83.8	89.3	91.1
410-229649-8	DC360006-EB	92.0	102	95.7	98.8	87.6	88.8	83.4	101
410-229649-9	DC360006-DUP-1	87.8	86.3	86.6	86.2	80.5	75.9	75.7	84.1
LCS 410-667147/15-A	Lab Control Sample	80.0	102	93.5	93.5	85.8	90.2	87.2	97.7
LCS 410-668972/14-A	Lab Control Sample	69.7	91.9	93.0	93.5	87.4	80.4	82.0	96.1
LCSD 410-667147/17-A	Lab Control Sample Dup	104	99.0	100	103	86.2	94.3	92.0	93.5

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
LCSD 410-668972/15-A	Lab Control Sample Dup	57.7	93.5	90.9	92.6	83.3	76.1	67.9	104
LLCS 410-667147/16-A	Lab Control Sample	80.6	97.8	98.1	97.2	87.4	91.5	87.1	99.8
LLCS 410-668972/16-A	Lab Control Sample	45.2	78.1	80.2	76.5	73.1	69.1	64.8	85.8
MB 410-667147/14-A	Method Blank	45.0	70.5	70.1	72.8	80.7	66.9	65.0	92.5
MB 410-668972/13-A	Method Blank	77.8	94.7	97.7	93.9	73.9	76.7	75.4	110

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-229649-5	DC360006-MW-8	108	96.1	87.2	73.7	70.2	65.0	69.3	87.5
410-229649-6	DC360006-MW-2S	98.7	88.8	94.3	77.7	75.1	69.6	69.0	91.2
410-229649-7	DC360006-FB	97.6	92.0	103	68.8	67.0	79.2	79.2	89.9
410-229649-8	DC360006-EB	103	94.2	106	78.6	69.5	78.0	81.8	92.6
410-229649-9	DC360006-DUP-1	87.7	80.5	88.1	65.6	60.7	70.2	72.0	81.1
LCS 410-667147/15-A	Lab Control Sample	97.8	89.1	99.8	73.7	69.7	77.5	76.4	86.3
LCS 410-668972/14-A	Lab Control Sample	93.8	88.9	87.8	70.8	70.5	63.2	65.6	87.2
LCSD 410-667147/17-A	Lab Control Sample Dup	96.9	94.4	105	70.0	65.2	83.3	81.2	104
LCSD 410-668972/15-A	Lab Control Sample Dup	105	88.4	106	52.8	48.9	56.0	59.5	66.2
LLCS 410-667147/16-A	Lab Control Sample	101	97.4	103	62.2	56.7	76.9	77.3	92.7
LLCS 410-668972/16-A	Lab Control Sample	83.0	74.2	86.1	48.5	45.2	55.8	57.2	59.2
MB 410-667147/14-A	Method Blank	83.2	70.4	95.2	53.6	48.0	65.4	72.5	71.3
MB 410-668972/13-A	Method Blank	104	87.4	97.4	68.9	65.9	58.7	55.0	76.1

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(25-147)	(17-154)	(20-150)	(20-158)	(28-148)	(27-159)	(25-152)	(12-169)
410-229649-1	DC360006-DET	74	73	70	82	73	93	78	31
LCS 410-668139/2-B	Lab Control Sample	73	70	65	78	70	85	77	78
MB 410-668139/1-B	Method Blank	79	77	73	89	76	90	82	89

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(10-164)	(10-165)	(31-166)	(26-155)	(34-153)	(13-151)	(10-172)	(10-188)
410-229649-1	DC360006-DET	15	41	65	83	83	26	35	24
LCS 410-668139/2-B	Lab Control Sample	67	70	70	78	85	54	71	73
MB 410-668139/1-B	Method Blank	81	81	75	86	89	61	81	90

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA
Lab Sample ID	Client Sample ID	(10-190)	(10-200)	(10-200)	(17-147)	(10-177)	(10-168)	(10-149)	(10-150)
410-229649-1	DC360006-DET	62	82	213 *5+ cn	78	21	6 *5- cn	8 *5- cn	21
LCS 410-668139/2-B	Lab Control Sample	77	88	73	79	52	59	51	48
MB 410-668139/1-B	Method Blank	77	91	84	84	60	65	61	61

		Percent Isotope Dilution Recovery (Acceptance Limits)
		MFHEA
Lab Sample ID	Client Sample ID	(10-162)
410-229649-1	DC360006-DET	24
LCS 410-668139/2-B	Lab Control Sample	63
MB 410-668139/1-B	Method Blank	69

Surrogate Legend

PFBA = 13C4-PFBA
PFPeA = 13C5-PFPeA
13C5PHA = 13C5-PFHxA
C4PFHA = 13C4-PFHpA
C8PFOA = 13C8-PFOA
C9PFNA = 13C9-PFNA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
PFDoDA = 13C2-PFDoA
PFTDA = 13C2-PFTeDA
C3PFBS = 13C3-PFBS
C3PFHS = 13C3-PFHxS
C8PFOS = 13C8-PFOS
PFOSA = 13C8-PFOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
HFPODA = 13C3-HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (19-191)	M262FTS (13-200)	M282FTS (10-200)	PFTDA (10-186)	HFPODA (10-140)	C3PFBS (24-176)	PFBA (26-162)	C4PFHA (10-193)
410-229649-2	DC360006-WW-PRE	75	88	98	83	71	96	82	92
410-229649-3	DC360006-WW-POST	72	85	97	70	66	90	80	89
410-229649-4	DC360006-MIST-PRE	77	82	104	78	70	91	80	84
410-229649-10	DC360006-DUP-2	71	82	90	65	66	94	78	85
LCS 410-667552/2-B	Lab Control Sample	87	92	107	74	77	94	83	85
LCSD 410-667552/3-B	Lab Control Sample Dup	82	93	101	74	72	97	85	86
MB 410-667552/1-B	Method Blank	88	94	105	74	74	97	84	87

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFPeA (15-162)	C8PFOA (27-160)	C8PFOS (22-172)	d3NMFOS (10-198)	d5NEFOS (10-200)	NMFM (10-181)	NEFM (10-182)	C3PFHS (11-180)
410-229649-2	DC360006-WW-PRE	87	71	89	86	85	66	54	95
410-229649-3	DC360006-WW-POST	85	69	85	78	90	63	49	90
410-229649-4	DC360006-MIST-PRE	86	73	86	85	85	67	55	89
410-229649-10	DC360006-DUP-2	89	66	80	73	80	57	50	85
LCS 410-667552/2-B	Lab Control Sample	90	72	87	83	86	63	51	91
LCSD 410-667552/3-B	Lab Control Sample Dup	91	72	88	82	83	66	50	91
MB 410-667552/1-B	Method Blank	92	71	88	84	90	66	52	90

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C5PHA (10-176)	C6PFDA (19-168)	13C7PUA (10-182)	d3NMFSA (10-137)	d5NPFSA (10-130)	PFOSA (10-149)	PFDoDA (10-183)	C9PFNA (10-198)
410-229649-2	DC360006-WW-PRE	93	84	96	56	53	66	89	75
410-229649-3	DC360006-WW-POST	88	81	96	56	53	68	82	74
410-229649-4	DC360006-MIST-PRE	89	82	97	57	54	66	90	75
410-229649-10	DC360006-DUP-2	84	78	88	49	48	62	77	69
LCS 410-667552/2-B	Lab Control Sample	88	82	97	55	52	63	84	75
LCSD 410-667552/3-B	Lab Control Sample Dup	92	83	93	55	51	65	85	79
MB 410-667552/1-B	Method Blank	92	83	95	51	50	64	84	80

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	MFHEA (10-185)
410-229649-2	DC360006-WW-PRE	66
410-229649-3	DC360006-WW-POST	68
410-229649-4	DC360006-MIST-PRE	71
410-229649-10	DC360006-DUP-2	66
LCS 410-667552/2-B	Lab Control Sample	69
LCSD 410-667552/3-B	Lab Control Sample Dup	70
MB 410-667552/1-B	Method Blank	63

Surrogate Legend

M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
PFTDA = 13C2-PFTeDA
HFPODA = 13C3-HFPO-DA
C3PFBS = 13C3-PFBS
PFBA = 13C4-PFBA
C4PFHA = 13C4-PFHpA
PFPeA = 13C5-PFPeA
C8PFOA = 13C8-PFOA
C8PFOS = 13C8-PFOS

d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
C3PFHS = 13C3-PFHxS
13C5PHA = 13C5-PFHxA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
PFOSA = 13C8-PFOSA
PFDoDA = 13C2-PFDoA
C9PFNA = 13C9-PFNA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(25-147)	(17-154)	(20-150)	(20-158)	(28-148)	(27-159)	(25-152)	(12-169)
LCS 410-672633/3-B	Lab Control Sample	93	96	98	97	88	94	99	96
LCSD 410-672633/4-B	Lab Control Sample Dup	89	94	98	97	89	95	95	96
MB 410-672633/2-B	Method Blank	80	92	94	97	82	99	94	99

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(10-164)	(10-165)	(31-166)	(26-155)	(34-153)	(13-151)	(10-188)	(10-200)
LCS 410-672633/3-B	Lab Control Sample	84	97	101	101	95	82	105	77
LCSD 410-672633/4-B	Lab Control Sample Dup	83	95	97	100	95	79	101	75
MB 410-672633/2-B	Method Blank	82	92	94	95	92	77	105	78

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA
Lab Sample ID	Client Sample ID	(10-200)	(17-147)	(10-177)	(10-168)	(10-149)	(10-150)	(10-162)
LCS 410-672633/3-B	Lab Control Sample	89	92	73	70	70	70	64
LCSD 410-672633/4-B	Lab Control Sample Dup	89	94	74	75	80	77	72
MB 410-672633/2-B	Method Blank	79	88	63	65	67	64	60

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA

NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(25-147)	(17-154)	(20-150)	(20-158)	(28-148)	(27-159)	(25-152)	(12-169)
410-229649-1	DC360006-DET	92	90	67	90	84	102	87	34

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(10-164)	(10-165)	(31-166)	(26-155)	(34-153)	(13-151)	(10-188)	(10-200)
410-229649-1	DC360006-DET	17	40	112	92	92	30	32	178

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA	
Lab Sample ID	Client Sample ID	(10-200)	(17-147)	(10-177)	(10-168)	(10-149)	(10-150)	(10-162)	
410-229649-1	DC360006-DET	195	80	23	8 *5-	10	22	48	

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-168)	(15-189)	(20-165)	(33-166)	(40-154)	(39-162)	(41-153)	(35-161)
LCS 410-669876/3-B	Lab Control Sample	104	101	99	104	93	105	106	111
LCSD 410-669876/4-B	Lab Control Sample Dup	104	104	102	104	93	106	106	102
MB 410-669876/2-B	Method Blank	101	97	94	98	93	106	99	104

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoDA (22-165)	PFTDA (17-156)	C3PFBS (27-200)	C3PFHS (39-164)	C8PFOS (44-153)	PFOSA (11-149)	d5NEFOS (30-180)	M262FTS (26-200)
LCS 410-669876/3-B	Lab Control Sample	92	105	103	103	103	73	110	82
LCSD 410-669876/4-B	Lab Control Sample Dup	90	99	103	104	103	72	102	89
MB 410-669876/2-B	Method Blank	96	105	98	101	104	71	100	78

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	M282FTS (27-200)	HFPODA (11-166)	NMFM (10-154)	NEFM (10-146)	d5NPFSA (10-130)	d3NMFSA (10-130)	MFHEA (15-182)
LCS 410-669876/3-B	Lab Control Sample	94	96	66	67	67	66	56
LCSD 410-669876/4-B	Lab Control Sample Dup	103	95	69	72	73	68	56
MB 410-669876/2-B	Method Blank	93	90	72	74	75	73	56

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-168)	PFPeA (15-189)	13C5PHA (20-165)	C4PFHA (33-166)	C8PFOA (40-154)	C9PFNA (39-162)	C6PFDA (41-153)	13C7PUA (35-161)
410-229649-2	DC360006-WW-PRE	102	118	89	96	91	109	96	91
410-229649-3	DC360006-WW-POST	101	108	101	105	94	108	99	99
410-229649-4	DC360006-MIST-PRE	99	109	96	98	91	104	96	100

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoDA (22-165)	PFTDA (17-156)	C3PFBS (27-200)	C3PFHS (39-164)	C8PFOS (44-153)	PFOSA (11-149)	d5NEFOS (30-180)	M262FTS (26-200)
410-229649-2	DC360006-WW-PRE	81	89	120	101	101	76	98	85
410-229649-3	DC360006-WW-POST	92	104	114	105	103	74	93	74
410-229649-4	DC360006-MIST-PRE	90	92	114	100	100	75	104	80

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Post-Treatment

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	M282FTS (27-200)	HFPODA (11-166)	NMFM (10-154)	NEFM (10-146)	d5NPFSA (10-130)	d3NMFSA (10-130)	MFHEA (15-182)
410-229649-2	DC360006-WW-PRE	139	87	72	70	71	71	59
410-229649-3	DC360006-WW-POST	91	89	81	78	68	67	56
410-229649-4	DC360006-MIST-PRE	106	89	71	71	57	54	59

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-677134/1-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluoropentanoic acid (PFPeA)	ND		10	3.0	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorohexanoic acid (PFHxA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluoroheptanoic acid (PFHpA)	ND		10	4.0	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorooctanoic acid (PFOA)	ND		10	4.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10	4.0	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorooctanesulfonic acid (PFOS)	ND		10	6.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		07/28/25 12:24	08/04/25 13:59	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		07/28/25 12:24	08/04/25 13:59	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		07/28/25 12:24	08/04/25 13:59	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		07/28/25 12:24	08/04/25 13:59	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		07/28/25 12:24	08/04/25 13:59	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		07/28/25 12:24	08/04/25 13:59	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-677134/1-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		07/28/25 12:24	08/04/25 13:59	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		07/28/25 12:24	08/04/25 13:59	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		07/28/25 12:24	08/04/25 13:59	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.8*		*10 - 130*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C5 PFPeA	*89.3*		*35 - 150*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C5 PFHxA	*94.2*		*55 - 150*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C4 PFHpA	*96.3*		*55 - 150*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C9 PFNA	*87.6*		*55 - 140*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C6 PFDA	*98.9*		*50 - 140*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C7 PFUnA	*102*		*30 - 140*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C2 PFTeDA	*82.2*		*10 - 130*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C3 PFBS	*98.2*		*55 - 150*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C3 PFHxS	*96.1*		*55 - 150*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C8 PFOS	*102*		*45 - 140*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
d3-NMeFOSAA	*107*		*45 - 200*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
d5-NEtFOSAA	*106*		*10 - 200*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C2 PFDoA	*86.0*		*10 - 150*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C2 4:2 FTS	*94.0*		*60 - 200*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C2 6:2 FTS	*102*		*60 - 200*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C2 8:2 FTS	*94.7*		*50 - 200*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C3 HFPO-DA	*77.9*		*25 - 160*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
d7-N-MeFOSE-M	*73.7*		*10 - 150*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
d9-N-EtFOSE-M	*66.3*		*10 - 150*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
d5-NEtPFOSA	*71.3*		*10 - 130*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
d3-NMePFOSA	*76.4*		*15 - 130*	*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C8 FOSA				*07/28/25 12:24*	*08/04/25 13:59*	*1*
13C2 PFOA	*89.1*		*40 - 130*	*07/28/25 12:24*	*08/04/25 13:59*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA				*07/28/25 12:24*	*08/04/25 13:59*	*1*
M3PFPeA				*07/28/25 12:24*	*08/04/25 13:59*	*1*

Lab Sample ID: LCS 410-677134/2-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	400	419		ng/L		105	58 - 148
Perfluoropentanoic acid (PFPeA)	200	204		ng/L		102	54 - 152
Perfluorohexanoic acid (PFHxA)	200	196		ng/L		98	55 - 152

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-677134/2-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	200	205		ng/L		102	54 - 154
Perfluorooctanoic acid (PFOA)	200	196		ng/L		98	52 - 161
Perfluorononanoic acid (PFNA)	200	195		ng/L		98	59 - 149
Perfluorodecanoic acid (PFDA)	200	188		ng/L		94	52 - 147
Perfluoroundecanoic acid (PFUnA)	200	193		ng/L		96	48 - 159
Perfluorododecanoic acid (PFDoA)	200	189		ng/L		95	64 - 142
Perfluorotridecanoic acid (PFTrDA)	200	223		ng/L		112	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	200	203		ng/L		101	47 - 161
Perfluorobutanesulfonic acid (PFBS)	178	166		ng/L		93	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	188	202		ng/L		107	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	182	167		ng/L		92	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	191	186		ng/L		97	55 - 152
Perfluorooctanesulfonic acid (PFOS)	186	180		ng/L		97	58 - 149
Perfluorononanesulfonic acid (PFNS)	192	182		ng/L		95	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	194	121		ng/L		62	36 - 145
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	375	414		ng/L		110	67 - 146
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	381	405		ng/L		106	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	384	392		ng/L		102	63 - 152
Perfluorooctanesulfonamide (PFOSA)	200	170		ng/L		85	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	200	200		ng/L		100	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	200	197		ng/L		99	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	200	203		ng/L		102	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	200	217		ng/L		108	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	1000	1080		ng/L		108	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	1000	1000		ng/L		100	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	150	157		ng/L		104	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	189	224		ng/L		118	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	200	200		ng/L		100	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	200	171		ng/L		86	48 - 161

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-677134/2-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			187	203		ng/L		109	56 - 156		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	192		ng/L		102	46 - 156		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	168		ng/L		94	56 - 151		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	340		ng/L		85	62 - 129		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	780		ng/L		78	63 - 134		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	766		ng/L		77	50 - 138		
Perfluorodecanesulfonic acid (PFDS)			193	173		ng/L		90	51 - 147		
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	189		ng/L		94	51 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*87.1*		*10 - 130*
13C5 PFPeA	*84.8*		*40 - 150*
13C5 PFHxA	*90.6*		*40 - 150*
13C4 PFHpA	*95.8*		*40 - 150*
13C9 PFNA	*98.0*		*30 - 140*
13C6 PFDA	*82.4*		*20 - 140*
13C7 PFUnA	*92.5*		*20 - 140*
13C2 PFTeDA	*63.9*		*10 - 130*
13C3 PFBS	*94.5*		*25 - 150*
13C3 PFHxS	*93.0*		*25 - 150*
13C8 PFOS	*95.9*		*20 - 140*
d3-NMeFOSAA	*98.5*		*10 - 200*
d5-NEtFOSAA	*98.7*		*10 - 200*
13C2 PFDoA	*88.2*		*10 - 150*
13C2 4:2 FTS	*89.8*		*25 - 200*
13C2 6:2 FTS	*95.8*		*25 - 200*
13C2 8:2 FTS	*97.3*		*25 - 200*
13C3 HFPO-DA	*76.7*		*25 - 160*
d7-N-MeFOSE-M	*78.3*		*10 - 150*
d9-N-EtFOSE-M	*72.9*		*10 - 150*
d5-NEtPFOSA	*66.3*		*10 - 130*
d3-NMePFOSA	*67.9*		*10 - 130*
13C2 PFOA	*85.9*		*40 - 130*

Lab Sample ID: LCSD 410-677134/3-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			400	413		ng/L		103	58 - 148	1	30
Perfluoropentanoic acid (PFPeA)			200	200		ng/L		100	54 - 152	2	30

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-677134/3-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)	200	196		ng/L		98	55 - 152	0	30
Perfluoroheptanoic acid (PFHpA)	200	205		ng/L		102	54 - 154	0	30
Perfluorooctanoic acid (PFOA)	200	189		ng/L		95	52 - 161	3	30
Perfluorononanoic acid (PFNA)	200	182		ng/L		91	59 - 149	7	30
Perfluorodecanoic acid (PFDA)	200	175		ng/L		87	52 - 147	7	30
Perfluoroundecanoic acid (PFUnA)	200	194		ng/L		97	48 - 159	1	30
Perfluorododecanoic acid (PFDoA)	200	173		ng/L		87	64 - 142	9	30
Perfluorotridecanoic acid (PFTrDA)	200	207		ng/L		104	49 - 148	7	30
Perfluorotetradecanoic acid (PFTeDA)	200	188		ng/L		94	47 - 161	8	30
Perfluorobutanesulfonic acid (PFBS)	178	162		ng/L		91	62 - 144	2	30
Perfluoropentanesulfonic acid (PFPeS)	188	192		ng/L		102	59 - 151	5	30
Perfluorohexanesulfonic acid (PFHxS)	182	166		ng/L		91	57 - 146	1	30
Perfluoroheptanesulfonic acid (PFHpS)	191	189		ng/L		99	55 - 152	1	30
Perfluorooctanesulfonic acid (PFOS)	186	181		ng/L		97	58 - 149	1	30
Perfluorononanesulfonic acid (PFNS)	192	183		ng/L		95	52 - 148	0	30
Perfluorododecanesulfonic acid (PFDoS)	194	142		ng/L		73	36 - 145	16	30
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	375	409		ng/L		109	67 - 146	1	30
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	381	396		ng/L		104	61 - 151	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	384	392		ng/L		102	63 - 152	0	30
Perfluorooctanesulfonamide (PFOSA)	200	172		ng/L		86	61 - 148	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	200	199		ng/L		100	63 - 145	0	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	200	197		ng/L		99	65 - 139	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	200	196		ng/L		98	58 - 144	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	200	214		ng/L		107	59 - 146	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	1000	1150		ng/L		115	71 - 136	6	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	1000	996		ng/L		100	69 - 137	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	150	159		ng/L		106	63 - 144	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	189	220		ng/L		116	68 - 146	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	200	202		ng/L		101	55 - 148	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	200	165		ng/L		83	48 - 161	4	30

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-677134/3-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			187	202		ng/L		108	56 - 156	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	199		ng/L		105	46 - 156	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	160		ng/L		90	56 - 151	5	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	345		ng/L		86	62 - 129	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	744		ng/L		74	63 - 134	5	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	744		ng/L		74	50 - 138	3	30
Perfluorodecanesulfonic acid (PFDS)			193	180		ng/L		93	51 - 147	4	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	188		ng/L		94	51 - 145	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*89.0*		*10 - 130*
13C5 PFPeA	*91.7*		*40 - 150*
13C5 PFHxA	*100*		*40 - 150*
13C4 PFHpA	*102*		*40 - 150*
13C9 PFNA	*98.2*		*30 - 140*
13C6 PFDA	*99.2*		*20 - 140*
13C7 PFUnA	*98.0*		*20 - 140*
13C2 PFTeDA	*81.6*		*10 - 130*
13C3 PFBS	*94.0*		*25 - 150*
13C3 PFHxS	*94.0*		*25 - 150*
13C8 PFOS	*97.9*		*20 - 140*
d3-NMeFOSAA	*104*		*10 - 200*
d5-NEtFOSAA	*103*		*10 - 200*
13C2 PFDoA	*82.9*		*10 - 150*
13C2 4:2 FTS	*90.1*		*25 - 200*
13C2 6:2 FTS	*98.9*		*25 - 200*
13C2 8:2 FTS	*95.8*		*25 - 200*
13C3 HFPO-DA	*83.0*		*25 - 160*
d7-N-MeFOSE-M	*84.8*		*10 - 150*
d9-N-EtFOSE-M	*78.2*		*10 - 150*
d5-NEtPFOSA	*65.3*		*10 - 130*
d3-NMePFOSA	*68.9*		*10 - 130*
13C2 PFOA	*92.3*		*40 - 130*

Lab Sample ID: LLCS 410-677134/4-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)			40.0	44.9		ng/L		112	44 - 157		
Perfluoropentanoic acid (PFPeA)			20.0	22.0		ng/L		110	57 - 148		

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-677134/4-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid (PFHxA)	20.0	21.1		ng/L		106	62 - 149
Perfluoroheptanoic acid (PFHpA)	20.0	21.9		ng/L		109	56 - 150
Perfluorooctanoic acid (PFOA)	20.0	21.9		ng/L		109	57 - 161
Perfluorononanoic acid (PFNA)	20.0	22.1		ng/L		110	53 - 157
Perfluorodecanoic acid (PFDA)	20.0	17.2		ng/L		86	43 - 158
Perfluoroundecanoic acid (PFUnA)	20.0	19.1		ng/L		96	50 - 155
Perfluorododecanoic acid (PFDoA)	20.0	19.1		ng/L		95	60 - 141
Perfluorotridecanoic acid (PFTrDA)	20.0	21.4		ng/L		107	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	20.0	22.5		ng/L		112	52 - 156
Perfluorobutanesulfonic acid (PFBS)	17.8	16.5		ng/L		93	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	18.8	21.5		ng/L		114	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	18.2	17.8		ng/L		97	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	19.1	19.0		ng/L		100	51 - 150
Perfluorooctanesulfonic acid (PFOS)	18.6	18.3		ng/L		98	43 - 162
Perfluorononanesulfonic acid (PFNS)	19.2	19.0		ng/L		99	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	19.4	19.4		ng/L		100	30 - 138
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	37.5	41.4		ng/L		110	52 - 158
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	38.1	40.5		ng/L		106	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	38.4	41.4		ng/L		108	46 - 165
Perfluorooctanesulfonamide (PFOSA)	20.0	17.4		ng/L		87	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	20.0	23.5		ng/L		117	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	20.0	20.6		ng/L		103	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20.0	19.8		ng/L		99	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20.0	21.0		ng/L		105	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	100	122		ng/L		122	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	100	107		ng/L		107	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	15.0	17.1		ng/L		114	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	18.9	22.8		ng/L		121	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	20.0	20.8		ng/L		104	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	20.0	18.9		ng/L		94	47 - 160

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-677134/4-A
Matrix: Water
Analysis Batch: 680271

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 677134

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			18.7	20.4		ng/L		109	44 - 167		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			18.9	23.0		ng/L		122	36 - 158		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			17.8	16.2		ng/L		91	56 - 144		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			40.0	38.3		ng/L		96	32 - 161		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			100	76.3		ng/L		76	39 - 156		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			100	89.2		ng/L		89	36 - 149		
Perfluorodecanesulfonic acid (PFDS)			19.3	21.9		ng/L		113	50 - 144		
Perfluoro-3-methoxypropanoic acid (PFMPA)			20.0	19.9		ng/L		100	48 - 150		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*70.3*		*10 - 130*
13C5 PFPeA	*66.6*		*40 - 150*
13C5 PFHxA	*69.7*		*40 - 150*
13C4 PFHpA	*68.6*		*40 - 150*
13C9 PFNA	*64.0*		*30 - 140*
13C6 PFDA	*65.9*		*20 - 140*
13C7 PFUnA	*75.5*		*20 - 140*
13C2 PFTeDA	*64.5*		*10 - 130*
13C3 PFBS	*69.4*		*25 - 150*
13C3 PFHxS	*67.3*		*25 - 150*
13C8 PFOS	*69.4*		*20 - 140*
d3-NMeFOSAA	*81.9*		*10 - 200*
d5-NEtFOSAA	*82.0*		*10 - 200*
13C2 PFDoA	*80.7*		*10 - 150*
13C2 4:2 FTS	*67.3*		*25 - 200*
13C2 6:2 FTS	*70.7*		*25 - 200*
13C2 8:2 FTS	*67.9*		*25 - 200*
13C3 HFPO-DA	*59.4*		*25 - 160*
d7-N-MeFOSE-M	*63.0*		*10 - 150*
d9-N-EtFOSE-M	*66.9*		*10 - 150*
d5-NEtPFOSA	*51.5*		*10 - 130*
d3-NMePFOSA	*50.0*		*10 - 130*
13C2 PFOA	*66.0*		*40 - 130*

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-667147/14-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/04/25 06:18	07/08/25 09:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-667147/14-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/04/25 06:18	07/08/25 09:20	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.1*		*5 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C5 PFPeA	*99.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C5 PFHxA	*87.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C4 PFHpA	*78.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 PFOA	*77.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C9 PFNA	*75.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C6 PFDA	*73.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C7 PFUnA	*69.1*		*30 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 PFTeDA	*45.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 PFBS	*70.5*		*40 - 135*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 PFHxS	*70.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 PFOS	*72.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 FOSA	*80.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d3-NMeFOSAA	*66.9*		*40 - 170*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d5-NEtFOSAA	*65.0*		*25 - 135*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 4:2 FTS	*92.5*		*40 - 200*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 6:2 FTS	*83.2*		*40 - 200*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 8:2 FTS	*70.4*		*40 - 300*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 HFPO-DA	*95.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d7-N-MeFOSE-M	*53.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d9-N-EtFOSE-M	*48.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d5-NEtPFOSA	*65.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d3-NMePFOSA	*72.5*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 PFDoA	*71.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	69.3		ng/L		87	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	34.4		ng/L		86	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	32.7		ng/L		82	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	32.1		ng/L		80	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	32.7		ng/L		82	70 - 150
Perfluorononanoic acid (PFNA)	40.0	30.7		ng/L		77	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	35.8		ng/L		89	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	30.7		ng/L		77	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	38.3		ng/L		96	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	31.8		ng/L		80	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.8		ng/L		77	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	27.1		ng/L		76	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	31.9		ng/L		85	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	29.2		ng/L		80	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	32.9		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	30.2		ng/L		81	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	30.2		ng/L		78	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	29.6		ng/L		77	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	24.0		ng/L		62	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	62.8		ng/L		84	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	66.4		ng/L		87	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	69.9		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	36.2		ng/L		91	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	33.8		ng/L		84	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.6		ng/L		84	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	31.7		ng/L		79	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.7		ng/L		84	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	180		ng/L		90	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	176		ng/L		88	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.0		ng/L		87	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	30.9		ng/L		82	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.1		ng/L		95	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.0		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.5		ng/L		81	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	29.6		ng/L		79	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	27.1		ng/L		72	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	32.6		ng/L		92	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	68.4		ng/L		86	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	158		ng/L		79	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	164		ng/L		82	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*103*		*5 - 130*
13C5 PFPeA	*103*		*40 - 130*
13C5 PFHxA	*95.0*		*40 - 130*
13C4 PFHpA	*98.9*		*40 - 130*
13C8 PFOA	*97.4*		*40 - 130*
13C9 PFNA	*96.7*		*40 - 130*
13C6 PFDA	*93.1*		*40 - 130*
13C7 PFUnA	*96.3*		*30 - 130*
13C2 PFTeDA	*80.0*		*10 - 130*
13C3 PFBS	*102*		*40 - 135*
13C3 PFHxS	*93.5*		*40 - 130*
13C8 PFOS	*93.5*		*40 - 130*
13C8 FOSA	*85.8*		*40 - 130*
d3-NMeFOSAA	*90.2*		*40 - 170*
d5-NEtFOSAA	*87.2*		*25 - 135*
13C2 4:2 FTS	*97.7*		*40 - 200*
13C2 6:2 FTS	*97.8*		*40 - 200*
13C2 8:2 FTS	*89.1*		*40 - 300*
13C3 HFPO-DA	*99.8*		*40 - 130*
d7-N-MeFOSE-M	*73.7*		*10 - 130*
d9-N-EtFOSE-M	*69.7*		*10 - 130*
d5-NEtPFOSA	*77.5*		*10 - 130*
d3-NMePFOSA	*76.4*		*10 - 130*
13C2 PFDoA	*86.3*		*10 - 130*

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	69.6		ng/L		87	70 - 140	0	30
Perfluoropentanoic acid (PFPeA)			40.0	34.5		ng/L		86	65 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	31.5		ng/L		79	70 - 145	4	30
Perfluoroheptanoic acid (PFHpA)			40.0	32.0		ng/L		80	70 - 150	1	30
Perfluorooctanoic acid (PFOA)			40.0	32.7		ng/L		82	70 - 150	0	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)			40.0	33.4		ng/L		84	70 - 150	8	30
Perfluorodecanoic acid (PFDA)			40.0	35.5		ng/L		89	70 - 140	1	30
Perfluoroundecanoic acid (PFUnA)			40.0	37.1		ng/L		93	70 - 145	19	30
Perfluorododecanoic acid (PFDoA)			40.0	35.2		ng/L		88	70 - 140	8	30
Perfluorotridecanoic acid (PFTrDA)			40.0	34.0		ng/L		85	65 - 140	7	30
Perfluorotetradecanoic acid (PFTeDA)			40.0	28.1		ng/L		70	60 - 140	9	30
Perfluorobutanesulfonic acid (PFBS)			35.5	30.8		ng/L		87	60 - 145	13	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	30.1		ng/L		80	65 - 140	6	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	28.4		ng/L		78	65 - 145	3	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	33.3		ng/L		87	70 - 150	1	30
Perfluorooctanesulfonic acid (PFOS)			37.2	31.7		ng/L		85	55 - 150	5	30
Perfluorononanesulfonic acid (PFNS)			38.5	30.9		ng/L		80	65 - 145	2	30
Perfluorodecanesulfonic acid (PFDS)			38.6	31.1		ng/L		81	60 - 145	5	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	30.0		ng/L		77	50 - 145	22	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			75.0	67.7		ng/L		90	70 - 145	7	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			76.2	68.8		ng/L		90	65 - 155	4	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			76.8	70.1		ng/L		91	60 - 150	0	30
Perfluorooctanesulfonamide (PFOSA)			40.0	39.3		ng/L		98	70 - 145	8	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			40.0	35.9		ng/L		90	60 - 150	6	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			40.0	35.8		ng/L		90	65 - 145	7	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	33.4		ng/L		84	50 - 140	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	36.5		ng/L		91	70 - 145	8	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			200	181		ng/L		90	70 - 145	0	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			200	178		ng/L		89	70 - 135	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			30.0	26.8		ng/L		89	70 - 140	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	30.7		ng/L		81	65 - 145	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			40.0	36.9		ng/L		92	55 - 140	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			40.0	32.4		ng/L		81	60 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	36.8		ng/L		92	50 - 150	12	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	29.7		ng/L		79	70 - 155	0	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	28.6		ng/L		76	55 - 160	5	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	31.2		ng/L		87	70 - 140	4	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	67.5		ng/L		84	65 - 130	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	165		ng/L		82	70 - 135	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	150		ng/L		75	50 - 145	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*100*		*5 - 130*
13C5 PFPeA	*110*		*40 - 130*
13C5 PFHxA	*105*		*40 - 130*
13C4 PFHpA	*106*		*40 - 130*
13C8 PFOA	*109*		*40 - 130*
13C9 PFNA	*107*		*40 - 130*
13C6 PFDA	*104*		*40 - 130*
13C7 PFUnA	*101*		*30 - 130*
13C2 PFTeDA	*104*		*10 - 130*
13C3 PFBS	*99.0*		*40 - 135*
13C3 PFHxS	*100*		*40 - 130*
13C8 PFOS	*103*		*40 - 130*
13C8 FOSA	*86.2*		*40 - 130*
d3-NMeFOSAA	*94.3*		*40 - 170*
d5-NEtFOSAA	*92.0*		*25 - 135*
13C2 4:2 FTS	*93.5*		*40 - 200*
13C2 6:2 FTS	*96.9*		*40 - 200*
13C2 8:2 FTS	*94.4*		*40 - 300*
13C3 HFPO-DA	*105*		*40 - 130*
d7-N-MeFOSE-M	*70.0*		*10 - 130*
d9-N-EtFOSE-M	*65.2*		*10 - 130*
d5-NEtPFOSA	*83.3*		*10 - 130*
d3-NMePFOSA	*81.2*		*10 - 130*
13C2 PFDoA	*104*		*10 - 130*

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.14		ng/L		89	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	4.03		ng/L		101	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.66		ng/L		92	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.30		ng/L		82	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.74		ng/L		94	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.35		ng/L		84	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.99		ng/L		100	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.40		ng/L		85	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.96		ng/L		99	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.87		ng/L		97	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.78		ng/L		95	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.95		ng/L		83	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.49		ng/L		93	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.40		ng/L		93	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.37		ng/L		88	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.42		ng/L		92	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.04		ng/L		79	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.16		ng/L		82	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.58		ng/L		66	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.79		ng/L		90	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.04		ng/L		92	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.07		ng/L		92	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.01		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.58		ng/L		90	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.57		ng/L		89	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.30		ng/L		82	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.54		ng/L		89	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	20.6		ng/L		103	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.2		ng/L		96	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.94		ng/L		98	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.15		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.88		ng/L		97	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.48		ng/L		87	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.10		ng/L		103	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	2.97		ng/L		79	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.86		ng/L		76	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.45		ng/L		97	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.04		ng/L		101	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	18.4		ng/L		92	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	16.9		ng/L		84	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*95.8*		*40 - 130*
13C4 PFHpA	*103*		*40 - 130*
13C8 PFOA	*97.5*		*40 - 130*
13C9 PFNA	*100*		*40 - 130*
13C6 PFDA	*98.7*		*40 - 130*
13C7 PFUnA	*95.8*		*30 - 130*
13C2 PFTeDA	*80.6*		*10 - 130*
13C3 PFBS	*97.8*		*40 - 135*
13C3 PFHxS	*98.1*		*40 - 130*
13C8 PFOS	*97.2*		*40 - 130*
13C8 FOSA	*87.4*		*40 - 130*
d3-NMeFOSAA	*91.5*		*40 - 170*
d5-NEtFOSAA	*87.1*		*25 - 135*
13C2 4:2 FTS	*99.8*		*40 - 200*
13C2 6:2 FTS	*101*		*40 - 200*
13C2 8:2 FTS	*97.4*		*40 - 300*
13C3 HFPO-DA	*103*		*40 - 130*
d7-N-MeFOSE-M	*62.2*		*10 - 130*
d9-N-EtFOSE-M	*56.7*		*10 - 130*
d5-NEtPFOSA	*76.9*		*10 - 130*
d3-NMePFOSA	*77.3*		*10 - 130*
13C2 PFDoA	*92.7*		*10 - 130*

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/09/25 15:04	07/11/25 18:25	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/09/25 15:04	07/11/25 18:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/09/25 15:04	07/11/25 18:25	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.2*		*5 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C5 PFPeA	*109*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C5 PFHxA	*107*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C4 PFHpA	*102*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 PFOA	*96.8*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C9 PFNA	*100*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C6 PFDA	*88.8*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C7 PFUnA	*82.2*		*30 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 PFTeDA	*77.8*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 PFBS	*94.7*		*40 - 135*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 PFHxS	*97.7*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 PFOS	*93.9*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 FOSA	*73.9*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d3-NMeFOSAA	*76.7*		*40 - 170*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d5-NEtFOSAA	*75.4*		*25 - 135*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 4:2 FTS	*110*		*40 - 200*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 6:2 FTS	*104*		*40 - 200*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 8:2 FTS	*87.4*		*40 - 300*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 HFPO-DA	*97.4*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d7-N-MeFOSE-M	*68.9*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d9-N-EtFOSE-M	*65.9*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d5-NEtPFOSA	*58.7*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d3-NMePFOSA	*55.0*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 PFDoA	*76.1*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	67.4		ng/L		84	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	33.5		ng/L		84	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	32.5		ng/L		81	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	36.9		ng/L		92	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	34.1		ng/L		85	70 - 150
Perfluorononanoic acid (PFNA)	40.0	33.3		ng/L		83	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	37.5		ng/L		94	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	41.0		ng/L		103	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	37.8		ng/L		94	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	36.3		ng/L		91	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	35.8		ng/L		90	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.6		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	34.0		ng/L		90	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	27.5		ng/L		75	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.8		ng/L		89	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	30.9		ng/L		83	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	28.6		ng/L		74	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	30.0		ng/L		78	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	21.4		ng/L		55	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	66.3		ng/L		88	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	65.0		ng/L		85	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	66.0		ng/L		86	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	38.6		ng/L		97	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	38.3		ng/L		96	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.6		ng/L		94	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.8		ng/L		94	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.6		ng/L		92	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	194		ng/L		97	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	182		ng/L		91	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.2		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	39.0		ng/L		103	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.2		ng/L		95	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	34.7		ng/L		87	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.8		ng/L		82	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	28.4		ng/L		76	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	27.9		ng/L		74	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.7		ng/L		86	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	66.9		ng/L		84	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	152		ng/L		76	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	153		ng/L		76	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*114*		*40 - 130*
13C5 PFHxA	*99.2*		*40 - 130*
13C4 PFHpA	*92.4*		*40 - 130*
13C8 PFOA	*92.9*		*40 - 130*
13C9 PFNA	*97.1*		*40 - 130*
13C6 PFDA	*89.5*		*40 - 130*
13C7 PFUnA	*85.1*		*30 - 130*
13C2 PFTeDA	*69.7*		*10 - 130*
13C3 PFBS	*91.9*		*40 - 135*
13C3 PFHxS	*93.0*		*40 - 130*
13C8 PFOS	*93.5*		*40 - 130*
13C8 FOSA	*87.4*		*40 - 130*
d3-NMeFOSAA	*80.4*		*40 - 170*
d5-NEtFOSAA	*82.0*		*25 - 135*
13C2 4:2 FTS	*96.1*		*40 - 200*
13C2 6:2 FTS	*93.8*		*40 - 200*
13C2 8:2 FTS	*88.9*		*40 - 300*
13C3 HFPO-DA	*87.8*		*40 - 130*
d7-N-MeFOSE-M	*70.8*		*10 - 130*
d9-N-EtFOSE-M	*70.5*		*10 - 130*
d5-NEtPFOSA	*63.2*		*10 - 130*
d3-NMePFOSA	*65.6*		*10 - 130*
13C2 PFDoA	*87.2*		*10 - 130*

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	71.4		ng/L		89	70 - 140	6	30
Perfluoropentanoic acid (PFPeA)			40.0	33.7		ng/L		84	65 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	33.2		ng/L		83	70 - 145	2	30
Perfluoroheptanoic acid (PFHpA)			40.0	36.7		ng/L		92	70 - 150	0	30
Perfluorooctanoic acid (PFOA)			40.0	34.6		ng/L		87	70 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	34.2		ng/L		86	70 - 150	3	30
Perfluorodecanoic acid (PFDA)	40.0	36.9		ng/L		92	70 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	42.8		ng/L		107	70 - 145	4	30
Perfluorododecanoic acid (PFDoA)	40.0	41.7		ng/L		104	70 - 140	10	30
Perfluorotridecanoic acid (PFTrDA)	40.0	35.9		ng/L		90	65 - 140	1	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.3		ng/L		76	60 - 140	17	30
Perfluorobutanesulfonic acid (PFBS)	35.5	30.6		ng/L		86	60 - 145	0	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	36.7		ng/L		98	65 - 140	8	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	30.4		ng/L		83	65 - 145	10	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	34.6		ng/L		91	70 - 150	2	30
Perfluorooctanesulfonic acid (PFOS)	37.2	31.9		ng/L		86	55 - 150	3	30
Perfluorononanesulfonic acid (PFNS)	38.5	26.4		ng/L		69	65 - 145	8	30
Perfluorodecanesulfonic acid (PFDS)	38.6	25.3		ng/L		66	60 - 145	17	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	20.7		ng/L		53	50 - 145	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	65.4		ng/L		87	70 - 145	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	63.1		ng/L		83	65 - 155	3	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	65.4		ng/L		85	60 - 150	1	30
Perfluorooctanesulfonamide (PFOSA)	40.0	38.9		ng/L		97	70 - 145	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.4		ng/L		98	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	39.3		ng/L		98	65 - 145	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	34.3		ng/L		86	50 - 140	10	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.8		ng/L		92	70 - 145	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	192		ng/L		96	70 - 145	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	179		ng/L		89	70 - 135	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	28.5		ng/L		95	70 - 140	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.1		ng/L		93	65 - 145	11	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	39.5		ng/L		99	55 - 140	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	33.5		ng/L		84	60 - 150	4	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	39.1		ng/L		98	50 - 150	18	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	27.5		ng/L		73	70 - 155	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	24.0		ng/L		64	55 - 160	15	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.5		ng/L		85	70 - 140	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	69.8		ng/L		87	65 - 130	4	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	168		ng/L		84	70 - 135	10	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	139		ng/L		69	50 - 145	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*126*		*40 - 130*
13C5 PFHxA	*107*		*40 - 130*
13C4 PFHpA	*101*		*40 - 130*
13C8 PFOA	*90.2*		*40 - 130*
13C9 PFNA	*99.6*		*40 - 130*
13C6 PFDA	*84.7*		*40 - 130*
13C7 PFUnA	*68.3*		*30 - 130*
13C2 PFTeDA	*57.7*		*10 - 130*
13C3 PFBS	*93.5*		*40 - 135*
13C3 PFHxS	*90.9*		*40 - 130*
13C8 PFOS	*92.6*		*40 - 130*
13C8 FOSA	*83.3*		*40 - 130*
d3-NMeFOSAA	*76.1*		*40 - 170*
d5-NEtFOSAA	*67.9*		*25 - 135*
13C2 4:2 FTS	*104*		*40 - 200*
13C2 6:2 FTS	*105*		*40 - 200*
13C2 8:2 FTS	*88.4*		*40 - 300*
13C3 HFPO-DA	*106*		*40 - 130*
d7-N-MeFOSE-M	*52.8*		*10 - 130*
d9-N-EtFOSE-M	*48.9*		*10 - 130*
d5-NEtPFOSA	*56.0*		*10 - 130*
d3-NMePFOSA	*59.5*		*10 - 130*
13C2 PFDoA	*66.2*		*10 - 130*

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	6.82		ng/L		85	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	2.97		ng/L		74	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.46		ng/L		87	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.74		ng/L		94	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.44		ng/L		111	70 - 150
Perfluorononanoic acid (PFNA)	4.00	5.42		ng/L		135	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.82		ng/L		120	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.65		ng/L		91	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.86		ng/L		97	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.73		ng/L		93	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.97		ng/L		99	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.99		ng/L		84	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.33		ng/L		89	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	2.85		ng/L		78	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.28		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.37		ng/L		91	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	2.51		ng/L		65	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	2.71		ng/L		70	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.03		ng/L		52	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.89		ng/L		92	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	6.37		ng/L		84	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	6.56		ng/L		85	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.55	I	ng/L		89	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.93		ng/L		98	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.12		ng/L		103	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.22		ng/L		80	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.54		ng/L		88	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.2		ng/L		106	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.3		ng/L		97	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.73		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.16		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.76		ng/L		94	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.20		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.61		ng/L		90	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	2.57	*-	ng/L		69	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.42		ng/L		64	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	2.63		ng/L		74	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.60		ng/L		83	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	15.7		ng/L		79	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	13.7		ng/L		68	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*89.2*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*88.4*		*40 - 130*
13C4 PFHpA	*82.9*		*40 - 130*
13C8 PFOA	*80.5*		*40 - 130*
13C9 PFNA	*78.9*		*40 - 130*
13C6 PFDA	*71.1*		*40 - 130*
13C7 PFUnA	*65.5*		*30 - 130*
13C2 PFTeDA	*45.2*		*10 - 130*
13C3 PFBS	*78.1*		*40 - 135*
13C3 PFHxS	*80.2*		*40 - 130*
13C8 PFOS	*76.5*		*40 - 130*
13C8 FOSA	*73.1*		*40 - 130*
d3-NMeFOSAA	*69.1*		*40 - 170*
d5-NEtFOSAA	*64.8*		*25 - 135*
13C2 4:2 FTS	*85.8*		*40 - 200*
13C2 6:2 FTS	*83.0*		*40 - 200*
13C2 8:2 FTS	*74.2*		*40 - 300*
13C3 HFPO-DA	*86.1*		*40 - 130*
d7-N-MeFOSE-M	*48.5*		*10 - 130*
d9-N-EtFOSE-M	*45.2*		*10 - 130*
d5-NEtPFOSA	*55.8*		*10 - 130*
d3-NMePFOSA	*57.2*		*10 - 130*
13C2 PFDoA	*59.2*		*10 - 130*

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-667552/1-B
Matrix: Water
Analysis Batch: 668945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667552

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		07/07/25 08:35	07/10/25 06:54	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		07/07/25 08:35	07/10/25 06:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		07/07/25 08:35	07/10/25 06:54	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	100	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	100	ng/L		07/07/25 08:35	07/10/25 06:54	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-667552/1-B
Matrix: Water
Analysis Batch: 668945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667552

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	150	ng/L		07/07/25 08:35	07/10/25 06:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	100	ng/L		07/07/25 08:35	07/10/25 06:54	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	100	ng/L		07/07/25 08:35	07/10/25 06:54	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	150	ng/L		07/07/25 08:35	07/10/25 06:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	100	ng/L		07/07/25 08:35	07/10/25 06:54	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4-PFBA	*84*		*26 - 162*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C4-PFHpA	*87*		*10 - 193*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C5-PFPeA	*92*		*15 - 162*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C2-PFTeDA	*74*		*10 - 186*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C8-PFOA	*71*		*27 - 160*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C3-PFBS	*97*		*24 - 176*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C8-PFOS	*88*		*22 - 172*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
d3-NMeFOSAA	*84*		*10 - 198*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C3-PFHxS	*90*		*11 - 180*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
d5-NEtFOSAA	*90*		*10 - 200*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C2-4:2 FTS	*88*		*19 - 191*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C5-PFHxA	*92*		*10 - 176*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C2-6:2 FTS	*94*		*13 - 200*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C6-PFDA	*83*		*19 - 168*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C2-8:2 FTS	*105*		*10 - 200*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C7-PFUnA	*95*		*10 - 182*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C3-HFPO-DA	*74*		*10 - 140*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
d7-N-MeFOSE-M	*66*		*10 - 181*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C8-PFOSA	*64*		*10 - 149*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
d9-N-EtFOSE-M	*52*		*10 - 182*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C2-PFDoA	*84*		*10 - 183*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
d5-NEtPFOSA	*50*		*10 - 130*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C9-PFNA	*80*		*10 - 198*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
d3-NMePFOSA	*51*		*10 - 137*	*07/07/25 08:35*	*07/10/25 06:54*	*1*
13C-6:2 FTCA	*63*		*10 - 185*	*07/07/25 08:35*	*07/10/25 06:54*	*1*

Lab Sample ID: LCS 410-667552/2-B
Matrix: Water
Analysis Batch: 668945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	5680	6200		ng/L		109	56 - 130
Perfluorobutanoic acid (PFBA)	6400	7050		ng/L		110	54 - 144
Perfluorodecanoic acid (PFDA)	6400	6900		ng/L		108	61 - 135
Perfluorodecanesulfonic acid (PFDS)	6170	6700		ng/L		109	63 - 130
Perfluorododecanesulfonic acid (PFDoS)	6210	6230		ng/L		100	59 - 130

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-667552/2-B
Matrix: Water
Analysis Batch: 668945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanoic acid (PFDoA)	6400	7170		ng/L		112	60 - 133
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	6590		ng/L		110	57 - 130
Perfluoroheptanesulfonic acid (PFHpS)	6090	6350		ng/L		104	51 - 132
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	6440		ng/L		106	58 - 136
Perfluoroheptanoic acid (PFHpA)	6400	7640		ng/L		119	54 - 133
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	6370		ng/L		104	57 - 134
Perfluorohexanesulfonic acid (PFHxS)	5840	6060		ng/L		104	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	7240		ng/L		113	55 - 132
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	6580		ng/L		103	61 - 134
Perfluorononanesulfonic acid (PFNS)	6160	6800		ng/L		110	65 - 136
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	6430		ng/L		100	59 - 137
Perfluorononanoic acid (PFNA)	6400	6870		ng/L		107	50 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	6760		ng/L		106	54 - 131
Perfluorooctanesulfonamide (PFOSA)	6400	7210		ng/L		113	62 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	7150		ng/L		112	53 - 130
Perfluorooctanesulfonic acid (PFOS)	5950	7000		ng/L		118	37 - 149
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	7560		ng/L		118	58 - 130
Perfluorooctanoic acid (PFOA)	6400	7470		ng/L		117	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	7240		ng/L		113	59 - 135
Perfluoropentanesulfonic acid (PFPeS)	6020	5910		ng/L		98	59 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	6940		ng/L		108	50 - 137
Perfluoropentanoic acid (PFPeA)	6400	6670		ng/L		104	59 - 133
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	6750		ng/L		111	55 - 130
Perfluorotetradecanoic acid (PFTeDA)	6400	7250		ng/L		113	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	6460		ng/L		101	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	6270		ng/L		98	58 - 133
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	6750		ng/L		113	59 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	6420		ng/L		106	61 - 131
Perfluoro-3-methoxypropanoic acid (PFMPA)	6400	6510		ng/L		102	53 - 135

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-667552/2-B
Matrix: Water
Analysis Batch: 668945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	5710	5570		ng/L		97	34 - 134
3-Perfluoropropylpropanoic acid (3:3 FTCA)	6400	5470		ng/L		86	10 - 155
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6400	5230		ng/L		82	46 - 133
3-Perfluoropentylpropanoic acid (5:3 FTCA)	6400	5610		ng/L		88	14 - 142
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	6400	4730		ng/L		74	10 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	6400	6350		ng/L		99	52 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4-PFBA	*83*		*26 - 162*
13C4-PFHpA	*85*		*10 - 193*
13C5-PFPeA	*90*		*15 - 162*
13C2-PFTeDA	*74*		*10 - 186*
13C8-PFOA	*72*		*27 - 160*
13C3-PFBS	*94*		*24 - 176*
13C8-PFOS	*87*		*22 - 172*
d3-NMeFOSAA	*83*		*10 - 198*
13C3-PFHxS	*91*		*11 - 180*
d5-NEtFOSAA	*86*		*10 - 200*
13C2-4:2 FTS	*87*		*19 - 191*
13C5-PFHxA	*88*		*10 - 176*
13C2-6:2 FTS	*92*		*13 - 200*
13C6-PFDA	*82*		*19 - 168*
13C2-8:2 FTS	*107*		*10 - 200*
13C7-PFUnA	*97*		*10 - 182*
13C3-HFPO-DA	*77*		*10 - 140*
d7-N-MeFOSE-M	*63*		*10 - 181*
13C8-PFOSA	*63*		*10 - 149*
d9-N-EtFOSE-M	*51*		*10 - 182*
13C2-PFDoA	*84*		*10 - 183*
d5-NEtPFOSA	*52*		*10 - 130*
13C9-PFNA	*75*		*10 - 198*
d3-NMePFOSA	*55*		*10 - 137*
13C-6:2 FTCA	*69*		*10 - 185*

Lab Sample ID: LCSD 410-667552/3-B
Matrix: Water
Analysis Batch: 668945

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667552

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanesulfonic acid (PFBS)	5680	5990		ng/L		105	56 - 130	3	30
Perfluorobutanoic acid (PFBA)	6400	7220		ng/L		113	54 - 144	2	30
Perfluorodecanoic acid (PFDA)	6400	6710		ng/L		105	61 - 135	3	30
Perfluorodecanesulfonic acid (PFDS)	6170	6760		ng/L		110	63 - 130	1	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-667552/3-B
Matrix: Water
Analysis Batch: 668945

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667552

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorododecanesulfonic acid (PFDoS)			6210	6280		ng/L		101	59 - 130	1	30
Perfluorododecanoic acid (PFDoA)			6400	7380		ng/L		115	60 - 133	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			6000	6530		ng/L		109	57 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)			6090	6430		ng/L		106	51 - 132	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			6090	6980		ng/L		115	58 - 136	8	30
Perfluoroheptanoic acid (PFHpA)			6400	7600		ng/L		119	54 - 133	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			6140	6940		ng/L		113	57 - 134	9	30
Perfluorohexanesulfonic acid (PFHxS)			5840	6190		ng/L		106	56 - 130	2	30
Perfluorohexanoic acid (PFHxA)			6400	7490		ng/L		117	55 - 132	3	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			6400	6680		ng/L		104	61 - 134	2	30
Perfluorononanesulfonic acid (PFNS)			6160	6810		ng/L		111	65 - 136	0	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			6400	6570		ng/L		103	59 - 137	2	30
Perfluorononanoic acid (PFNA)			6400	6630		ng/L		104	50 - 140	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			6400	7150		ng/L		112	54 - 131	5	30
Perfluorooctanesulfonamide (PFOSA)			6400	7240		ng/L		113	62 - 136	0	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			6400	7350		ng/L		115	53 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)			5950	6990		ng/L		117	37 - 149	0	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			6400	7340		ng/L		115	58 - 130	3	30
Perfluorooctanoic acid (PFOA)			6400	7680		ng/L		120	60 - 130	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			6400	7550		ng/L		118	59 - 135	4	30
Perfluoropentanesulfonic acid (PFPeS)			6020	5940		ng/L		99	59 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			6400	8590		ng/L		134	50 - 137	21	30
Perfluoropentanoic acid (PFPeA)			6400	6930		ng/L		108	59 - 133	4	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)			6050	6880		ng/L		114	55 - 130	2	30
Perfluorotetradecanoic acid (PFTeDA)			6400	7360		ng/L		115	62 - 130	2	30
Perfluorotridecanoic acid (PFTrDA)			6400	6500		ng/L		102	53 - 133	1	30
Perfluoroundecanoic acid (PFUnA)			6400	6730		ng/L		105	58 - 133	7	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	6870		ng/L		115	59 - 130	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	6540		ng/L		108	61 - 131	2	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-667552/3-B
Matrix: Water
Analysis Batch: 668945

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667552

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	6890		ng/L		108	53 - 135	6	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	5880		ng/L		103	34 - 134	6	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5890		ng/L		92	10 - 155	7	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	5180		ng/L		81	46 - 133	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	6000		ng/L		94	14 - 142	7	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	4970		ng/L		78	10 - 150	5	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	6570		ng/L		103	52 - 130	3	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4-PFBA	*85*		*26 - 162*
13C4-PFHpA	*86*		*10 - 193*
13C5-PFPeA	*91*		*15 - 162*
13C2-PFTeDA	*74*		*10 - 186*
13C8-PFOA	*72*		*27 - 160*
13C3-PFBS	*97*		*24 - 176*
13C8-PFOS	*88*		*22 - 172*
d3-NMeFOSAA	*82*		*10 - 198*
13C3-PFHxS	*91*		*11 - 180*
d5-NEtFOSAA	*83*		*10 - 200*
13C2-4:2 FTS	*82*		*19 - 191*
13C5-PFHxA	*92*		*10 - 176*
13C2-6:2 FTS	*93*		*13 - 200*
13C6-PFDA	*83*		*19 - 168*
13C2-8:2 FTS	*101*		*10 - 200*
13C7-PFUnA	*93*		*10 - 182*
13C3-HFPO-DA	*72*		*10 - 140*
d7-N-MeFOSE-M	*66*		*10 - 181*
13C8-PFOSA	*65*		*10 - 149*
d9-N-EtFOSE-M	*50*		*10 - 182*
13C2-PFDoA	*85*		*10 - 183*
d5-NEtPFOSA	*51*		*10 - 130*
13C9-PFNA	*79*		*10 - 198*
d3-NMePFOSA	*55*		*10 - 137*
13C-6:2 FTCA	*70*		*10 - 185*

Lab Sample ID: MB 410-668139/1-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.40	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorobutanoic acid (PFBA)	ND		2.0	0.80	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorodecanoic acid (PFDA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-668139/1-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorododecanoic acid (PFDoA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0	0.60	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0	0.60	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoroheptanoic acid (PFHpA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.60	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorohexanoic acid (PFHxA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorononanesulfonic acid (PFNS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorononanoic acid (PFNA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.60	0.51	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorooctanoic acid (PFOA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.0	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoropentanoic acid (PFPeA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		3.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoroundecanoic acid (PFUnA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-668139/1-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4-PFBA	*79*		*25 - 147*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C4-PFHpA	*89*		*20 - 158*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C5-PFPeA	*77*		*17 - 154*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-PFTeDA	*81*		*10 - 165*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C8-PFOA	*76*		*28 - 148*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C3-PFBS	*75*		*31 - 166*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C8-PFOS	*89*		*34 - 153*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d3-NMeFOSAA	*81*		*10 - 172*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C3-PFHxS	*86*		*26 - 155*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d5-NEtFOSAA	*90*		*10 - 188*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-4:2 FTS	*77*		*10 - 190*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C5-PFHxA	*73*		*20 - 150*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-6:2 FTS	*91*		*10 - 200*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C6-PFDA	*82*		*25 - 152*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-8:2 FTS	*84*		*10 - 200*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C7-PFUnA	*89*		*12 - 169*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C3-HFPO-DA	*84*		*17 - 147*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d7-N-MeFOSE-M	*60*		*10 - 177*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C8-PFOSA	*61*		*13 - 151*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d9-N-EtFOSE-M	*65*		*10 - 168*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-PFDoA	*81*		*10 - 164*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d5-NEtPFOSA	*61*		*10 - 149*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C9-PFNA	*90*		*27 - 159*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d3-NMePFOSA	*61*		*10 - 150*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C-6:2 FTCA	*69*		*10 - 162*	*07/08/25 09:11*	*07/10/25 02:12*	*1*

Lab Sample ID: LCS 410-668139/2-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	22.2	21.8		ng/g		98	56 - 130
Perfluorobutanoic acid (PFBA)	25.0	27.6		ng/g		111	60 - 130
Perfluorodecanoic acid (PFDA)	25.0	22.8		ng/g		91	57 - 130
Perfluorodecanesulfonic acid (PFDS)	24.1	24.8		ng/g		103	50 - 134
Perfluorododecanesulfonic acid (PFDoS)	24.3	26.0		ng/g		107	43 - 132
Perfluorododecanoic acid (PFDoA)	25.0	26.3		ng/g		105	58 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	23.5	25.8		ng/g		110	57 - 130

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-668139/2-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	23.9	26.1		ng/g		109	58 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	23.8	25.5		ng/g		107	59 - 130
Perfluoroheptanoic acid (PFHpA)	25.0	23.4		ng/g		94	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	24.0	25.8		ng/g		108	56 - 130
Perfluorohexanesulfonic acid (PFHxS)	22.8	21.1		ng/g		93	57 - 130
Perfluorohexanoic acid (PFHxA)	25.0	24.2		ng/g		97	56 - 130
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	27.1		ng/g		108	64 - 130
Perfluorononanesulfonic acid (PFNS)	24.1	24.7		ng/g		103	56 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	26.0		ng/g		104	64 - 130
Perfluorononanoic acid (PFNA)	25.0	22.1		ng/g		88	57 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	21.9		ng/g		88	56 - 130
Perfluorooctanesulfonamide (PFOSA)	25.0	28.5		ng/g		114	64 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	23.3		ng/g		93	55 - 130
Perfluorooctanesulfonic acid (PFOS)	23.3	22.5		ng/g		97	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	25.0	27.9		ng/g		112	59 - 130
Perfluorooctanoic acid (PFOA)	25.0	25.1		ng/g		100	56 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	25.0	26.0		ng/g		104	62 - 130
Perfluoropentanesulfonic acid (PFPeS)	23.5	27.6		ng/g		117	54 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	25.0	19.5		ng/g		78	48 - 130
Perfluoropentanoic acid (PFPeA)	25.0	28.7		ng/g		115	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	23.7	22.0		ng/g		93	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	25.0	25.7		ng/g		103	57 - 130
Perfluorotridecanoic acid (PFTrDA)	25.0	25.6		ng/g		103	53 - 135
Perfluoroundecanoic acid (PFUnA)	25.0	22.3		ng/g		89	58 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	23.4	19.4		ng/g		83	56 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	23.6	20.6		ng/g		87	50 - 135
Perfluoro-3-methoxypropanoic acid (PFMPA)	25.0	24.3		ng/g		97	53 - 134
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	22.3	22.7		ng/g		102	41 - 132
3-Perfluoropropylpropanoic acid (3:3 FTCA)	25.0	17.3		ng/g		69	10 - 158

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-668139/2-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	25.0	23.8		ng/g		95	41 - 134
3-Perfluoropentylpropanoic acid (5:3 FTCA)	25.0	17.2		ng/g		69	10 - 143
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	25.0	22.9		ng/g		92	17 - 152
Perfluoro-4-methoxybutanoic acid (PFMBA)	25.0	23.2		ng/g		93	48 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4-PFBA	*73*		*25 - 147*
13C4-PFHpA	*78*		*20 - 158*
13C5-PFPeA	*70*		*17 - 154*
13C2-PFTeDA	*70*		*10 - 165*
13C8-PFOA	*70*		*28 - 148*
13C3-PFBS	*70*		*31 - 166*
13C8-PFOS	*85*		*34 - 153*
d3-NMeFOSAA	*71*		*10 - 172*
13C3-PFHxS	*78*		*26 - 155*
d5-NEtFOSAA	*73*		*10 - 188*
13C2-4:2 FTS	*77*		*10 - 190*
13C5-PFHxA	*65*		*20 - 150*
13C2-6:2 FTS	*88*		*10 - 200*
13C6-PFDA	*77*		*25 - 152*
13C2-8:2 FTS	*73*		*10 - 200*
13C7-PFUnA	*78*		*12 - 169*
13C3-HFPO-DA	*79*		*17 - 147*
d7-N-MeFOSE-M	*52*		*10 - 177*
13C8-PFOSA	*54*		*13 - 151*
d9-N-EtFOSE-M	*59*		*10 - 168*
13C2-PFDoA	*67*		*10 - 164*
d5-NEtPFOSA	*51*		*10 - 149*
13C9-PFNA	*85*		*27 - 159*
d3-NMePFOSA	*48*		*10 - 150*
13C-6:2 FTCA	*63*		*10 - 162*

Method: 537 TOP - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-669876/1-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 FTCA	ND		1000	350	ng/L		07/11/25 07:30	07/18/25 12:02	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-669876/2-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorodecanoic acid (PFDA)	270	J	1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/11/25 07:30	07/18/25 12:15	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/11/25 07:30	07/18/25 12:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-669876/2-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		07/11/25 07:30	07/18/25 12:15	1
6:2 FTCA	ND		1000	350	ng/L		07/11/25 07:30	07/18/25 12:15	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 168*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C5 PFPeA	*97*		*15 - 189*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C5 PFHxA	*94*		*20 - 165*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C4 PFHpA	*98*		*33 - 166*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C8 PFOA	*93*		*40 - 154*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C9 PFNA	*106*		*39 - 162*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C6 PFDA	*99*		*41 - 153*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C7 PFUnA	*104*		*35 - 161*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C2-PFDoDA	*96*		*22 - 165*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C2 PFTeDA	*105*		*17 - 156*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C3 PFBS	*98*		*27 - 200*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C3 PFHxS	*101*		*39 - 164*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C8 PFOS	*104*		*44 - 153*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C8 FOSA	*71*		*11 - 149*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d5-NEtFOSAA	*100*		*30 - 180*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
M2-6:2 FTS	*78*		*26 - 200*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
M2-8:2 FTS	*93*		*27 - 200*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C3 HFPO-DA	*90*		*11 - 166*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d7-N-MeFOSE-M	*72*		*10 - 154*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d9-N-EtFOSE-M	*74*		*10 - 146*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d5-NEtPFOSA	*75*		*10 - 130*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
d3-NMePFOSA	*73*		*10 - 130*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C-6:2 FTCA	*56*		*15 - 182*	*07/11/25 07:30*	*07/18/25 12:15*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C4 PFOA				*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C2 PFUnA				*07/11/25 07:30*	*07/18/25 12:15*	*1*

Lab Sample ID: LCS 410-669876/3-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12800	12300		ng/L		96	56 - 130
Perfluoropentanoic acid (PFPeA)	12800	12500		ng/L		97	56 - 130
Perfluorohexanoic acid (PFHxA)	12800	11700		ng/L		92	54 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-669876/3-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	12800	12400		ng/L		97	57 - 130
Perfluorooctanoic acid (PFOA)	12800	12900		ng/L		100	58 - 130
Perfluorononanoic acid (PFNA)	12800	11700		ng/L		91	61 - 130
Perfluorodecanoic acid (PFDA)	12800	12600		ng/L		99	61 - 130
Perfluoroundecanoic acid (PFUnA)	12800	11900		ng/L		93	60 - 130
Perfluorododecanoic acid (PFDoA)	12800	13200		ng/L		103	59 - 130
Perfluorotridecanoic acid (PFTrDA)	12800	14400		ng/L		112	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	12800	12300		ng/L		96	59 - 130
Perfluorobutanesulfonic acid (PFBS)	11400	11000		ng/L		97	58 - 130
Perfluoropentanesulfonic acid (PFPeS)	12000	11300		ng/L		94	55 - 130
Perfluorohexanesulfonic acid (PFHxS)	11700	10900		ng/L		94	59 - 130
Perfluoroheptanesulfonic acid (PFHpS)	12200	11300		ng/L		93	55 - 130
Perfluorooctanesulfonic acid (PFOS)	11900	11000		ng/L		92	59 - 130
Perfluorononanesulfonic acid (PFNS)	12300	11300		ng/L		92	58 - 130
Perfluorodecanesulfonic acid (PFDS)	12300	11800		ng/L		96	53 - 130
Perfluorododecanesulfonic acid (PFDoS)	12400	12100		ng/L		97	51 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	14000		ng/L		117	59 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	13300		ng/L		109	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	12800		ng/L		104	55 - 130
Perfluorooctanesulfonamide (PFOSA)	12800	13300		ng/L		104	64 - 133
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	11500		ng/L		90	59 - 148
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	11400		ng/L		89	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	11100		ng/L		86	58 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	11500		ng/L		90	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	11800		ng/L		92	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	12800		ng/L		100	61 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	11900		ng/L		93	47 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	11300		ng/L		94	57 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	11800		ng/L		92	56 - 137

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-669876/3-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669876

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro-4-methoxybutanoic acid (PFMBA)			12800	12100		ng/L		94	49 - 130		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	11600		ng/L		91	50 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	11900		ng/L		100	58 - 130		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	11400		ng/L		94	55 - 130		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	10800		ng/L		94	50 - 130		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	9640		ng/L		75	34 - 148		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	9390		ng/L		73	45 - 139		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	18700	*+	ng/L		146	38 - 135		
6:2 FTCA			12800	17300	*+	ng/L		135	34 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*104*		*10 - 168*
13C5 PFPeA	*101*		*15 - 189*
13C5 PFHxA	*99*		*20 - 165*
13C4 PFHpA	*104*		*33 - 166*
13C8 PFOA	*93*		*40 - 154*
13C9 PFNA	*105*		*39 - 162*
13C6 PFDA	*106*		*41 - 153*
13C7 PFUnA	*111*		*35 - 161*
13C2-PFDoDA	*92*		*22 - 165*
13C2 PFTeDA	*105*		*17 - 156*
13C3 PFBS	*103*		*27 - 200*
13C3 PFHxS	*103*		*39 - 164*
13C8 PFOS	*103*		*44 - 153*
13C8 FOSA	*73*		*11 - 149*
d5-NEtFOSAA	*110*		*30 - 180*
M2-6:2 FTS	*82*		*26 - 200*
M2-8:2 FTS	*94*		*27 - 200*
13C3 HFPO-DA	*96*		*11 - 166*
d7-N-MeFOSE-M	*66*		*10 - 154*
d9-N-EtFOSE-M	*67*		*10 - 146*
d5-NEtPFOSA	*67*		*10 - 130*
d3-NMePFOSA	*66*		*10 - 130*
13C-6:2 FTCA	*56*		*15 - 182*

Lab Sample ID: LCSD 410-669876/4-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669876

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			12800	12300		ng/L		96	56 - 130	0	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-669876/4-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669876

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoropentanoic acid (PFPeA)	12800	11700		ng/L		91	56 - 130	7	30
Perfluorohexanoic acid (PFHxA)	12800	12200		ng/L		95	54 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	12800	12500		ng/L		98	57 - 130	1	30
Perfluorooctanoic acid (PFOA)	12800	13000		ng/L		102	58 - 130	1	30
Perfluorononanoic acid (PFNA)	12800	11700		ng/L		92	61 - 130	1	30
Perfluorodecanoic acid (PFDA)	12800	11900		ng/L		93	61 - 130	6	30
Perfluoroundecanoic acid (PFUnA)	12800	12600		ng/L		99	60 - 130	5	30
Perfluorododecanoic acid (PFDoA)	12800	13000		ng/L		102	59 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)	12800	14300		ng/L		112	56 - 130	0	30
Perfluorotetradecanoic acid (PFTeDA)	12800	12400		ng/L		97	59 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	11400	10900		ng/L		96	58 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	12000	11400		ng/L		95	55 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	11700	10900		ng/L		94	59 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS)	12200	11000		ng/L		90	55 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	11900	11300		ng/L		95	59 - 130	2	30
Perfluorononanesulfonic acid (PFNS)	12300	11600		ng/L		94	58 - 130	2	30
Perfluorodecanesulfonic acid (PFDS)	12300	12200		ng/L		99	53 - 130	3	30
Perfluorododecanesulfonic acid (PFDoS)	12400	12400		ng/L		100	51 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	13300		ng/L		111	59 - 130	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	12200		ng/L		100	56 - 130	9	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	11200		ng/L		91	55 - 130	14	30
Perfluorooctanesulfonamide (PFOSA)	12800	13500		ng/L		106	64 - 133	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	11600		ng/L		91	59 - 148	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	10900		ng/L		85	60 - 140	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	11600		ng/L		91	58 - 130	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	12600		ng/L		98	57 - 130	9	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	12000		ng/L		94	60 - 130	2	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	11800		ng/L		92	61 - 130	8	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	12200		ng/L		96	47 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	11500		ng/L		95	57 - 130	1	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-669876/4-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669876

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoro-3-methoxypropanoic acid (PFMPA)			12800	11800		ng/L		92	56 - 137	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			12800	12200		ng/L		95	49 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	11600		ng/L		91	50 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	11700		ng/L		98	58 - 130	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	11900		ng/L		98	55 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	10900		ng/L		96	50 - 130	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	9490		ng/L		74	34 - 148	2	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	10200		ng/L		80	45 - 139	8	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	19900	*+	ng/L		156	38 - 135	6	30
6:2 FTCA			12800	18100	*+	ng/L		142	34 - 130	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*104*		*10 - 168*
13C5 PFPeA	*104*		*15 - 189*
13C5 PFHxA	*102*		*20 - 165*
13C4 PFHpA	*104*		*33 - 166*
13C8 PFOA	*93*		*40 - 154*
13C9 PFNA	*106*		*39 - 162*
13C6 PFDA	*106*		*41 - 153*
13C7 PFUnA	*102*		*35 - 161*
13C2-PFDoDA	*90*		*22 - 165*
13C2 PFTeDA	*99*		*17 - 156*
13C3 PFBS	*103*		*27 - 200*
13C3 PFHxS	*104*		*39 - 164*
13C8 PFOS	*103*		*44 - 153*
13C8 FOSA	*72*		*11 - 149*
d5-NEtFOSAA	*102*		*30 - 180*
M2-6:2 FTS	*89*		*26 - 200*
M2-8:2 FTS	*103*		*27 - 200*
13C3 HFPO-DA	*95*		*11 - 166*
d7-N-MeFOSE-M	*69*		*10 - 154*
d9-N-EtFOSE-M	*72*		*10 - 146*
d5-NEtPFOSA	*73*		*10 - 130*
d3-NMePFOSA	*68*		*10 - 130*
13C-6:2 FTCA	*56*		*15 - 182*

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-672633/2-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.80	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoropentanoic acid (PFPeA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorohexanoic acid (PFHxA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoroheptanoic acid (PFHpA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorooctanoic acid (PFOA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorononanoic acid (PFNA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorodecanoic acid (PFDA)	0.281	J	0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoroundecanoic acid (PFUnA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorododecanoic acid (PFDoA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.40	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.60	0.51	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorononanesulfonic acid (PFNS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0	0.60	ng/g		07/17/25 08:29	07/19/25 22:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0	0.60	ng/g		07/17/25 08:29	07/19/25 22:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.60	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ng/g		07/17/25 08:29	07/19/25 22:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		3.0	1.0	ng/g		07/17/25 08:29	07/19/25 22:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-672633/2-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
6:2 FTCA	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*80*		*25 - 147*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C5 PFPeA	*92*		*17 - 154*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C5 PFHxA	*94*		*20 - 150*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C4 PFHpA	*97*		*20 - 158*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C8 PFOA	*82*		*28 - 148*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C9 PFNA	*99*		*27 - 159*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C6 PFDA	*94*		*25 - 152*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C7 PFUnA	*99*		*12 - 169*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C2-PFDoDA	*82*		*10 - 164*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C2 PFTeDA	*92*		*10 - 165*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C3 PFBS	*94*		*31 - 166*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C3 PFHxS	*95*		*26 - 155*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C8 PFOS	*92*		*34 - 153*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C8 FOSA	*77*		*13 - 151*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
d5-NEtFOSAA	*105*		*10 - 188*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
M2-6:2 FTS	*78*		*10 - 200*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
M2-8:2 FTS	*79*		*10 - 200*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C3 HFPO-DA	*88*		*17 - 147*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
d7-N-MeFOSE-M	*63*		*10 - 177*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
d9-N-EtFOSE-M	*65*		*10 - 168*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
d5-NEtPFOSA	*67*		*10 - 149*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
d3-NMePFOSA	*64*		*10 - 150*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C-6:2 FTCA	*60*		*10 - 162*	*07/17/25 08:29*	*07/19/25 22:12*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C4 PFOA				*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C2 PFUnA				*07/17/25 08:29*	*07/19/25 22:12*	*1*

Lab Sample ID: LCS 410-672633/3-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	50.0	50.0		ng/g		100	60 - 130
Perfluoropentanoic acid (PFPeA)	50.0	50.2		ng/g		100	59 - 130
Perfluorohexanoic acid (PFHxA)	50.0	38.0		ng/g		76	56 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-672633/3-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	50.0	43.4		ng/g		87	56 - 130
Perfluorooctanoic acid (PFOA)	50.0	42.8		ng/g		86	56 - 130
Perfluorononanoic acid (PFNA)	50.0	39.5		ng/g		79	57 - 130
Perfluorodecanoic acid (PFDA)	50.0	42.0		ng/g		84	57 - 130
Perfluoroundecanoic acid (PFUnA)	50.0	43.4		ng/g		87	58 - 130
Perfluorododecanoic acid (PFDoA)	50.0	46.6		ng/g		93	58 - 130
Perfluorotridecanoic acid (PFTrDA)	50.0	49.5		ng/g		99	53 - 135
Perfluorotetradecanoic acid (PFTeDA)	50.0	42.1		ng/g		84	57 - 130
Perfluorobutanesulfonic acid (PFBS)	44.4	38.3		ng/g		86	56 - 130
Perfluoropentanesulfonic acid (PFPeS)	47.0	46.7		ng/g		99	54 - 130
Perfluorohexanesulfonic acid (PFHxS)	45.6	36.2		ng/g		79	57 - 130
Perfluoroheptanesulfonic acid (PFHpS)	47.7	45.2		ng/g		95	58 - 130
Perfluorooctanesulfonic acid (PFOS)	46.5	43.4		ng/g		93	57 - 130
Perfluorononanesulfonic acid (PFNS)	48.1	44.8		ng/g		93	56 - 130
Perfluorodecanesulfonic acid (PFDS)	48.2	48.4		ng/g		100	50 - 134
Perfluorododecanesulfonic acid (PFDoS)	48.5	48.2		ng/g		99	43 - 132
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	46.9	55.7		ng/g		119	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	47.6	51.8		ng/g		109	59 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	48.0	48.2		ng/g		101	56 - 130
Perfluorooctanesulfonamide (PFOSA)	50.0	58.3		ng/g		117	64 - 130
N-methylperfluorooctane sulfonamide (NMeFOSA)	50.0	49.1		ng/g		98	64 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	50.0	50.1		ng/g		100	64 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.0	44.5		ng/g		89	56 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.0	45.1		ng/g		90	55 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	50.0	47.2		ng/g		94	59 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	50.0	52.8		ng/g		106	62 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	50.0	40.9		ng/g		82	48 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	47.3	38.9		ng/g		82	56 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	44.3		ng/g		89	56 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-672633/3-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	40.3		ng/g		81	48 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	41.0		ng/g		82	41 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	46.7	37.3		ng/g		80	56 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	47.2	39.4		ng/g		84	50 - 135
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.6	40.8		ng/g		91	41 - 132
3-Perfluoropropylpropanoic acid (3:3 FTCA)	50.0	45.0		ng/g		90	10 - 158
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	45.3		ng/g		91	10 - 143
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	67.1		ng/g		134	17 - 152
6:2 FTCA	50.0	58.3		ng/g		117	46 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*93*		*25 - 147*
13C5 PFPeA	*96*		*17 - 154*
13C5 PFHxA	*98*		*20 - 150*
13C4 PFHpA	*97*		*20 - 158*
13C8 PFOA	*88*		*28 - 148*
13C9 PFNA	*94*		*27 - 159*
13C6 PFDA	*99*		*25 - 152*
13C7 PFUnA	*96*		*12 - 169*
13C2-PFDoDA	*84*		*10 - 164*
13C2 PFTeDA	*97*		*10 - 165*
13C3 PFBS	*101*		*31 - 166*
13C3 PFHxS	*101*		*26 - 155*
13C8 PFOS	*95*		*34 - 153*
13C8 FOSA	*82*		*13 - 151*
d5-NEtFOSAA	*105*		*10 - 188*
M2-6:2 FTS	*77*		*10 - 200*
M2-8:2 FTS	*89*		*10 - 200*
13C3 HFPO-DA	*92*		*17 - 147*
d7-N-MeFOSE-M	*73*		*10 - 177*
d9-N-EtFOSE-M	*70*		*10 - 168*
d5-NEtPFOSA	*70*		*10 - 149*
d3-NMePFOSA	*70*		*10 - 150*
13C-6:2 FTCA	*64*		*10 - 162*

Lab Sample ID: LCSD 410-672633/4-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672633

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	50.0	49.6		ng/g		99	60 - 130	1	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-672633/4-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672633

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoropentanoic acid (PFPeA)	50.0	48.4		ng/g		97	59 - 130	4	30
Perfluorohexanoic acid (PFHxA)	50.0	38.1		ng/g		76	56 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	50.0	44.2		ng/g		88	56 - 130	2	30
Perfluorooctanoic acid (PFOA)	50.0	44.5		ng/g		89	56 - 130	4	30
Perfluorononanoic acid (PFNA)	50.0	41.3		ng/g		83	57 - 130	4	30
Perfluorodecanoic acid (PFDA)	50.0	44.2		ng/g		88	57 - 130	5	30
Perfluoroundecanoic acid (PFUnA)	50.0	43.0		ng/g		86	58 - 130	1	30
Perfluorododecanoic acid (PFDoA)	50.0	46.9		ng/g		94	58 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)	50.0	48.7		ng/g		97	53 - 135	2	30
Perfluorotetradecanoic acid (PFTeDA)	50.0	42.7		ng/g		85	57 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	44.4	39.4		ng/g		89	56 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)	47.0	47.8		ng/g		102	54 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	45.6	37.5		ng/g		82	57 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	47.7	44.5		ng/g		93	58 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	46.5	44.1		ng/g		95	57 - 130	2	30
Perfluorononanesulfonic acid (PFNS)	48.1	45.6		ng/g		95	56 - 130	2	30
Perfluorodecanesulfonic acid (PFDS)	48.2	48.2		ng/g		100	50 - 134	0	30
Perfluorododecanesulfonic acid (PFDoS)	48.5	50.9		ng/g		105	43 - 132	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	46.9	57.0		ng/g		121	57 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	47.6	54.5		ng/g		115	59 - 130	5	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	48.0	49.2		ng/g		103	56 - 130	2	30
Perfluorooctanesulfonamide (PFOSA)	50.0	58.1		ng/g		116	64 - 130	0	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	50.0	50.4		ng/g		101	64 - 130	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	50.0	49.2		ng/g		98	64 - 130	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.0	40.1		ng/g		80	56 - 130	10	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.0	47.7		ng/g		95	55 - 130	6	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	50.0	49.8		ng/g		100	59 - 130	5	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	50.0	52.9		ng/g		106	62 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	50.0	38.7		ng/g		77	48 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	47.3	39.5		ng/g		83	56 - 130	1	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-672633/4-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672633

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoro-3-methoxypropanoic acid (PFMPA)			50.0	45.1		ng/g		90	56 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			50.0	40.2		ng/g		80	48 - 130	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			50.0	41.3		ng/g		83	41 - 134	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			46.7	38.7		ng/g		83	56 - 130	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			47.2	39.6		ng/g		84	50 - 135	0	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			44.6	39.6		ng/g		89	41 - 132	3	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			50.0	44.7		ng/g		89	10 - 158	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			50.0	46.5		ng/g		93	10 - 143	3	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			50.0	61.4		ng/g		123	17 - 152	9	30
6:2 FTCA			50.0	55.7		ng/g		111	46 - 130	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*89*		*25 - 147*
13C5 PFPeA	*94*		*17 - 154*
13C5 PFHxA	*98*		*20 - 150*
13C4 PFHpA	*97*		*20 - 158*
13C8 PFOA	*89*		*28 - 148*
13C9 PFNA	*95*		*27 - 159*
13C6 PFDA	*95*		*25 - 152*
13C7 PFUnA	*96*		*12 - 169*
13C2-PFDoDA	*83*		*10 - 164*
13C2 PFTeDA	*95*		*10 - 165*
13C3 PFBS	*97*		*31 - 166*
13C3 PFHxS	*100*		*26 - 155*
13C8 PFOS	*95*		*34 - 153*
13C8 FOSA	*79*		*13 - 151*
d5-NEtFOSAA	*101*		*10 - 188*
M2-6:2 FTS	*75*		*10 - 200*
M2-8:2 FTS	*89*		*10 - 200*
13C3 HFPO-DA	*94*		*17 - 147*
d7-N-MeFOSE-M	*74*		*10 - 177*
d9-N-EtFOSE-M	*75*		*10 - 168*
d5-NEtPFOSA	*80*		*10 - 149*
d3-NMePFOSA	*77*		*10 - 150*
13C-6:2 FTCA	*72*		*10 - 162*

LCMS

Prep Batch: 667147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-7	DC360006-FB	Total/NA	Water	1633A	
410-229649-8	DC360006-EB	Total/NA	Water	1633A	
410-229649-9	DC360006-DUP-1	Total/NA	Water	1633A	
MB 410-667147/14-A	Method Blank	Total/NA	Water	1633A	
LCS 410-667147/15-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-667147/17-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-667147/16-A	Lab Control Sample	Total/NA	Water	1633A	

Prep Batch: 667552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-2	DC360006-WW-PRE	Total/NA	Water	EPA 537 (Mod)	
410-229649-3	DC360006-WW-POST	Total/NA	Water	EPA 537 (Mod)	
410-229649-4	DC360006-MIST-PRE	Total/NA	Water	EPA 537 (Mod)	
410-229649-10	DC360006-DUP-2	Total/NA	Water	EPA 537 (Mod)	
MB 410-667552/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-667552/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-667552/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Analysis Batch: 668033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-7	DC360006-FB	Total/NA	Water	1633A	667147
410-229649-8	DC360006-EB	Total/NA	Water	1633A	667147
410-229649-9	DC360006-DUP-1	Total/NA	Water	1633A	667147
MB 410-667147/14-A	Method Blank	Total/NA	Water	1633A	667147
LCS 410-667147/15-A	Lab Control Sample	Total/NA	Water	1633A	667147
LCSD 410-667147/17-A	Lab Control Sample Dup	Total/NA	Water	1633A	667147
LLCS 410-667147/16-A	Lab Control Sample	Total/NA	Water	1633A	667147

Prep Batch: 668139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-1	DC360006-DET	Total/NA	Solid	537 (mod)	
MB 410-668139/1-B	Method Blank	Total/NA	Solid	537 (mod)	
LCS 410-668139/2-B	Lab Control Sample	Total/NA	Solid	537 (mod)	

Cleanup Batch: 668301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-1	DC360006-DET	Total/NA	Solid	Extract Aliquot	668139
MB 410-668139/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	668139
LCS 410-668139/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	668139

Cleanup Batch: 668366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-2	DC360006-WW-PRE	Total/NA	Water	Extract Aliquot	667552
410-229649-3	DC360006-WW-POST	Total/NA	Water	Extract Aliquot	667552
410-229649-4	DC360006-MIST-PRE	Total/NA	Water	Extract Aliquot	667552
410-229649-10	DC360006-DUP-2	Total/NA	Water	Extract Aliquot	667552
MB 410-667552/1-B	Method Blank	Total/NA	Water	Extract Aliquot	667552
LCS 410-667552/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	667552
LCSD 410-667552/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	667552

LCMS

Analysis Batch: 668782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-1	DC360006-DET	Total/NA	Solid	537 IDA	668301
MB 410-668139/1-B	Method Blank	Total/NA	Solid	537 IDA	668301
LCS 410-668139/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	668301

Analysis Batch: 668945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-2	DC360006-WW-PRE	Total/NA	Water	537 IDA	668366
410-229649-3	DC360006-WW-POST	Total/NA	Water	537 IDA	668366
410-229649-4	DC360006-MIST-PRE	Total/NA	Water	537 IDA	668366
410-229649-10	DC360006-DUP-2	Total/NA	Water	537 IDA	668366
MB 410-667552/1-B	Method Blank	Total/NA	Water	537 IDA	668366
LCS 410-667552/2-B	Lab Control Sample	Total/NA	Water	537 IDA	668366
LCSD 410-667552/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	668366

Prep Batch: 668972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-5	DC360006-MW-8	Total/NA	Water	1633A	
410-229649-6	DC360006-MW-2S	Total/NA	Water	1633A	
MB 410-668972/13-A	Method Blank	Total/NA	Water	1633A	
LCS 410-668972/14-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-668972/15-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-668972/16-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 669314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-5	DC360006-MW-8	Total/NA	Water	1633A	668972
LCS 410-668972/14-A	Lab Control Sample	Total/NA	Water	1633A	668972
LCSD 410-668972/15-A	Lab Control Sample Dup	Total/NA	Water	1633A	668972
LLCS 410-668972/16-A	Lab Control Sample	Total/NA	Water	1633A	668972

Prep Batch: 669876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-2	DC360006-WW-PRE	Post-Treatment	Water	TOP Post Prep	
410-229649-3	DC360006-WW-POST	Post-Treatment	Water	TOP Post Prep	
410-229649-4	DC360006-MIST-PRE	Post-Treatment	Water	TOP Post Prep	
MB 410-669876/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-669876/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-669876/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-669876/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Analysis Batch: 670041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-6	DC360006-MW-2S	Total/NA	Water	1633A	668972
MB 410-668972/13-A	Method Blank	Total/NA	Water	1633A	668972

Cleanup Batch: 670855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-2	DC360006-WW-PRE	Post-Treatment	Water	Extract Aliquot	669876
410-229649-3	DC360006-WW-POST	Post-Treatment	Water	Extract Aliquot	669876
410-229649-4	DC360006-MIST-PRE	Post-Treatment	Water	Extract Aliquot	669876
MB 410-669876/1-B	Method Blank	Total/NA	Water	Extract Aliquot	669876

LCMS (Continued)

Cleanup Batch: 670855 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-669876/2-B	Method Blank	Total/NA	Water	Extract Aliquot	669876
LCS 410-669876/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	669876
LCSD 410-669876/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	669876

Prep Batch: 672633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-1	DC360006-DET	Post-Treatment	Solid	TOP Post-Prep	
MB 410-672633/1-B	Method Blank	Total/NA	Solid	TOP Post-Prep	
MB 410-672633/2-B	Method Blank	Total/NA	Solid	TOP Post-Prep	
LCS 410-672633/3-B	Lab Control Sample	Total/NA	Solid	TOP Post-Prep	
LCSD 410-672633/4-B	Lab Control Sample Dup	Total/NA	Solid	TOP Post-Prep	

Analysis Batch: 672727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-2	DC360006-WW-PRE	Post-Treatment	Water	537 TOP	670855
410-229649-3	DC360006-WW-POST	Post-Treatment	Water	537 TOP	670855
410-229649-4	DC360006-MIST-PRE	Post-Treatment	Water	537 TOP	670855
MB 410-669876/1-B	Method Blank	Total/NA	Water	537 TOP	670855
MB 410-669876/2-B	Method Blank	Total/NA	Water	537 TOP	670855
LCS 410-669876/3-B	Lab Control Sample	Total/NA	Water	537 TOP	670855
LCSD 410-669876/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	670855

Cleanup Batch: 673259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-1	DC360006-DET	Post-Treatment	Solid	Extract Aliquot	672633
MB 410-672633/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	672633
MB 410-672633/2-B	Method Blank	Total/NA	Solid	Extract Aliquot	672633
LCS 410-672633/3-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	672633
LCSD 410-672633/4-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	672633

Analysis Batch: 673622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-1	DC360006-DET	Post-Treatment	Solid	537 TOP	673259
MB 410-672633/1-B	Method Blank	Total/NA	Solid	537 TOP	673259
MB 410-672633/2-B	Method Blank	Total/NA	Solid	537 TOP	673259
LCS 410-672633/3-B	Lab Control Sample	Total/NA	Solid	537 TOP	673259
LCSD 410-672633/4-B	Lab Control Sample Dup	Total/NA	Solid	537 TOP	673259

Prep Batch: 677134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-5	DC360006-MW-8	Post-Treatment	Water	TOP Post Prep	
410-229649-6	DC360006-MW-2S	Post-Treatment	Water	TOP Post Prep	
MB 410-677134/1-A	Method Blank	Post-Treatment	Water	TOP Post Prep	
LCS 410-677134/2-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	
LCSD 410-677134/3-A	Lab Control Sample Dup	Post-Treatment	Water	TOP Post Prep	
LLCS 410-677134/4-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	

Analysis Batch: 680271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-5	DC360006-MW-8	Post-Treatment	Water	1633 TOPS	677134
410-229649-6	DC360006-MW-2S	Post-Treatment	Water	1633 TOPS	677134

LCMS (Continued)

Analysis Batch: 680271 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-677134/1-A	Method Blank	Post-Treatment	Water	1633 TOPS	677134
LCS 410-677134/2-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	677134
LCSD 410-677134/3-A	Lab Control Sample Dup	Post-Treatment	Water	1633 TOPS	677134
LLCS 410-677134/4-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	677134

General Chemistry

Analysis Batch: 668291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-229649-1	DC360006-DET	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-DET
Lab Sample ID: 410-229649-1
Date Collected: 06/18/25 10:10
Matrix: Solid
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	668291	E5GC	ELLE	07/08/25 10:46

Client Sample ID: DC360006-DET
Lab Sample ID: 410-229649-1
Date Collected: 06/18/25 10:10
Matrix: Solid
Date Received: 06/26/25 10:15
Percent Solids: 99.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537 (mod)			668139	D5VP	ELLE	07/08/25 09:11
Total/NA	Cleanup	Extract Aliquot			668301	D5VP	ELLE	07/08/25 13:44
Total/NA	Analysis	537 IDA		1	668782	DSU6	ELLE	07/10/25 03:47
Post-Treatment	Prep	TOP Post-Prep			672633	S7AC	ELLE	07/17/25 08:29
Post-Treatment	Cleanup	Extract Aliquot			673259	S7AC	ELLE	07/18/25 11:21
Post-Treatment	Analysis	537 TOP		1	673622	DSU6	ELLE	07/19/25 23:07

Client Sample ID: DC360006-WW-PRE
Lab Sample ID: 410-229649-2
Date Collected: 06/24/25 09:15
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			667552	D5VP	ELLE	07/07/25 08:35
Total/NA	Cleanup	Extract Aliquot			668366	D5VP	ELLE	07/08/25 15:34
Total/NA	Analysis	537 IDA		1	668945	DSU6	ELLE	07/10/25 07:48
Post-Treatment	Prep	TOP Post Prep			669876	S7AC	ELLE	07/11/25 07:30
Post-Treatment	Cleanup	Extract Aliquot			670855	S7AC	ELLE	07/14/25 10:59
Post-Treatment	Analysis	537 TOP		1	672727	DSU6	ELLE	07/17/25 14:58

Client Sample ID: DC360006-WW-POST
Lab Sample ID: 410-229649-3
Date Collected: 06/24/25 09:20
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			667552	D5VP	ELLE	07/07/25 08:35
Total/NA	Cleanup	Extract Aliquot			668366	D5VP	ELLE	07/08/25 15:34
Total/NA	Analysis	537 IDA		1	668945	DSU6	ELLE	07/10/25 08:02
Post-Treatment	Prep	TOP Post Prep			669876	S7AC	ELLE	07/11/25 07:30
Post-Treatment	Cleanup	Extract Aliquot			670855	S7AC	ELLE	07/14/25 10:59
Post-Treatment	Analysis	537 TOP		1	672727	DSU6	ELLE	07/17/25 15:12

Client Sample ID: DC360006-MIST-PRE
Lab Sample ID: 410-229649-4
Date Collected: 06/24/25 09:25
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			667552	D5VP	ELLE	07/07/25 08:35
Total/NA	Cleanup	Extract Aliquot			668366	D5VP	ELLE	07/08/25 15:34
Total/NA	Analysis	537 IDA		1	668945	DSU6	ELLE	07/10/25 08:15

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-MIST-PRE
Lab Sample ID: 410-229649-4
Date Collected: 06/24/25 09:25
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			669876	S7AC	ELLE	07/11/25 07:30
Post-Treatment	Cleanup	Extract Aliquot			670855	S7AC	ELLE	07/14/25 10:59
Post-Treatment	Analysis	537 TOP		1	672727	DSU6	ELLE	07/17/25 15:26

Client Sample ID: DC360006-MW-8
Lab Sample ID: 410-229649-5
Date Collected: 06/18/25 11:45
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			677134	S7AC	ELLE	07/28/25 12:24
Post-Treatment	Analysis	1633 TOPS		1	680271	XBL5	ELLE	08/04/25 15:07
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 20:28

Client Sample ID: DC360006-MW-2S
Lab Sample ID: 410-229649-6
Date Collected: 06/18/25 12:45
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			677134	S7AC	ELLE	07/28/25 12:24
Post-Treatment	Analysis	1633 TOPS		1	680271	XBL5	ELLE	08/04/25 15:21
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	670041	RPU6	ELLE	07/11/25 19:49

Client Sample ID: DC360006-FB
Lab Sample ID: 410-229649-7
Date Collected: 06/18/25 13:45
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 11:50

Client Sample ID: DC360006-EB
Lab Sample ID: 410-229649-8
Date Collected: 06/18/25 13:45
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 12:04

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Client Sample ID: DC360006-DUP-1
Lab Sample ID: 410-229649-9
Date Collected: 06/18/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 12:17

Client Sample ID: DC360006-DUP-2
Lab Sample ID: 410-229649-10
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			667552	D5VP	ELLE	07/07/25 08:35
Total/NA	Cleanup	Extract Aliquot			668366	D5VP	ELLE	07/08/25 15:34
Total/NA	Analysis	537 IDA		1	668945	DSU6	ELLE	07/10/25 08:29

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	09-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633 TOPS	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633 TOPS	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633 TOPS	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633 TOPS	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633 TOPS	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633 TOPS	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
1633 TOPS	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
1633 TOPS	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
1633 TOPS	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
1633 TOPS	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)
537 IDA	537 (mod)	Solid	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	537 (mod)	Solid	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	537 (mod)	Solid	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	537 (mod)	Solid	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	537 (mod)	Solid	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	537 (mod)	Solid	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	537 (mod)	Solid	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	537 (mod)	Solid	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	537 (mod)	Solid	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	537 (mod)	Solid	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	537 (mod)	Solid	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	537 (mod)	Solid	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	537 (mod)	Solid	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	537 (mod)	Solid	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	537 (mod)	Solid	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	537 (mod)	Solid	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	537 (mod)	Solid	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	537 (mod)	Solid	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	537 (mod)	Solid	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	537 (mod)	Solid	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	537 (mod)	Solid	Perfluorobutanesulfonic acid (PFBS)
537 IDA	537 (mod)	Solid	Perfluorobutanoic acid (PFBA)
537 IDA	537 (mod)	Solid	Perfluorodecanesulfonic acid (PFDS)
537 IDA	537 (mod)	Solid	Perfluorodecanoic acid (PFDA)
537 IDA	537 (mod)	Solid	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	537 (mod)	Solid	Perfluorododecanoic acid (PFDoA)
537 IDA	537 (mod)	Solid	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	537 (mod)	Solid	Perfluoroheptanoic acid (PFHpA)
537 IDA	537 (mod)	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	537 (mod)	Solid	Perfluorohexanoic acid (PFHxA)
537 IDA	537 (mod)	Solid	Perfluorononanesulfonic acid (PFNS)
537 IDA	537 (mod)	Solid	Perfluorononanoic acid (PFNA)
537 IDA	537 (mod)	Solid	Perfluorooctanesulfonamide (PFOSA)
537 IDA	537 (mod)	Solid	Perfluorooctanesulfonic acid (PFOS)
537 IDA	537 (mod)	Solid	Perfluorooctanoic acid (PFOA)
537 IDA	537 (mod)	Solid	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	537 (mod)	Solid	Perfluoropentanoic acid (PFPeA)
537 IDA	537 (mod)	Solid	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	537 (mod)	Solid	Perfluorotridecanoic acid (PFTrDA)
537 IDA	537 (mod)	Solid	Perfluoroundecanoic acid (PFUnA)
537 IDA	EPA 537 (Mod)	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	EPA 537 (Mod)	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	EPA 537 (Mod)	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	EPA 537 (Mod)	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid (PFBS)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid (PFBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid (PFDS)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid (PFDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid (PFDoA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid (PFHpA)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid (PFHxA)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid (PFNS)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid (PFNA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide (PFOSA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid (PFOS)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid (PFOA)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid (PFPeA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid (PFTrDA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid (PFUnA)
537 TOP	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post Prep	Water	6:2 FTCA
537 TOP	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)
537 TOP	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post-Prep	Solid	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post-Prep	Solid	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post-Prep	Solid	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post-Prep	Solid	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post-Prep	Solid	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post-Prep	Solid	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post-Prep	Solid	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post-Prep	Solid	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post-Prep	Solid	6:2 FTCA
537 TOP	TOP Post-Prep	Solid	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post-Prep	Solid	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post-Prep	Solid	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post-Prep	Solid	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post-Prep	Solid	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post-Prep	Solid	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post-Prep	Solid	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post-Prep	Solid	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post-Prep	Solid	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post-Prep	Solid	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post-Prep	Solid	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post-Prep	Solid	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post-Prep	Solid	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post-Prep	Solid	Perfluorobutanoic acid (PFBA)
537 TOP	TOP Post-Prep	Solid	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post-Prep	Solid	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post-Prep	Solid	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post-Prep	Solid	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post-Prep	Solid	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post-Prep	Solid	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post-Prep	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post-Prep	Solid	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post-Prep	Solid	Perfluorononanesulfonic acid (PFNS)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post-Prep	Solid	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post-Prep	Solid	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post-Prep	Solid	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post-Prep	Solid	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post-Prep	Solid	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post-Prep	Solid	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post-Prep	Solid	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post-Prep	Solid	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post-Prep	Solid	Perfluoroundecanoic acid (PFUnA)
Moisture		Solid	Percent Moisture

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Method	Method Description	Protocol	Laboratory
1633 TOPS	Fluorinated Alkyl Substances	EPA	ELLE
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 TOP	Fluorinated Alkyl Substances	EPA	ELLE
Moisture	Percent Moisture	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE
537 (mod)	EPA 537 Isotope Dilution	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE
TOP Post-Prep	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Job ID: 410-229649-1
Project/Site: One Hour Martinizing (DC360006)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-229649-1	DC360006-DET	Solid	06/18/25 10:10	06/26/25 10:15	North Carolina
410-229649-2	DC360006-WW-PRE	Water	06/24/25 09:15	06/26/25 10:15	North Carolina
410-229649-3	DC360006-WW-POST	Water	06/24/25 09:20	06/26/25 10:15	North Carolina
410-229649-4	DC360006-MIST-PRE	Water	06/24/25 09:25	06/26/25 10:15	North Carolina
410-229649-5	DC360006-MW-8	Water	06/18/25 11:45	06/26/25 10:15	North Carolina
410-229649-6	DC360006-MW-2S	Water	06/18/25 12:45	06/26/25 10:15	North Carolina
410-229649-7	DC360006-FB	Water	06/18/25 13:45	06/26/25 10:15	North Carolina
410-229649-8	DC360006-EB	Water	06/18/25 13:45	06/26/25 10:15	North Carolina
410-229649-9	DC360006-DUP-1	Water	06/18/25 00:00	06/26/25 10:15	North Carolina
410-229649-10	DC360006-DUP-2	Water	06/24/25 00:00	06/26/25 10:15	North Carolina

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Chain of Custody Record

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410-229649 Chain of Custody

Sam Martin	Sampler: Gavin De Mars	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159579-44127.1
	Phone: (951) 595-2256	E-Mail: kelly.gallagher@et eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:			Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			
City: Charlotte	TAT Requested (days): Standard (H&H)(10-day)			
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DS0 PFAS			
Email: smartin@harthickman.com	WO #:			
Project Name: One Hour Martinizing (DC360006)	Project #: 41025876			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: N - None

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - List of 40 based on EPA method	[redacted]_TOPS (Post) 537	537 Mod	TOPS (Post) 1633	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N				
———	—	—	G	Water	N	N					—	* Please report J flags
DC360006 - DET	6/18/25	16:10		~~Water~~ Solid				✓	✓		3	* report non-detects
DC360006 - WW - PRE	6/24/25	09:15		Water				✓	✓		3	as < MDLs
DC360006 - WW - POST	↓	09:20		Water				✓	✓		3	* EDD formats: H&H,
DC360006 - MIST - PRE	↓	09:25		Water				✓	✓		3	DSCA, NCDEQ
DC360006 - MW-8	6/18/25	11:45		Water				✓		✓	3	
DC360006 - MW-25	↓	12:45		Water				✓		✓	3	
DC360006 - FB	↓	13:45		Water			✓				2	
DC360006 - EB	↓	13:45	↓	Water	↓	↓	✓				2	
DC360006 - DUP - 1	↓	—	↓	Water			✓				2	
DC360006 - DUP - 2	6/24/25	—	↓	Water					✓		2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: (II) III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: GDeMars	Date/Time: 6/24/25 17:30	Company: H&H	Received by:	Date/Time: 6/25/25 1115	Company
Relinquished by:	Date/Time: 6/25/25 1700	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/26/25 10:15	Company ET
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	R: 4.3	C: 4.1

Ver: 10/10/2024

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

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Client Information	Sampler: Gavin De Mars	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159583-44128.1
Client Contact: Sam Martin	Phone: (951) 595-2256	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			Preservation Codes: N - None
City: Charlotte	TAT Requested (days): H+H Standard (10-day)			
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DS0 PFAS			
Email: smartin@harthickman.com	WO #			
Project Name: Iredell Laundry (DC490007)	Project #: 41025876			Other:
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS (Post)	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
~~MW-3~~ GRD DC490007-MW-3	6/24/25	1315	G	Water	N	N	✓	✓	3	☆ Please report J
~~MW-1~~ DC490007-MW-1		1525		Water			✓	✓	3	flags + report
DC490007-DUP-1		—		Water				✓	2	non-detects as
DC490007-FB		1310		Water				✓	2	<MDLs
DC490007-EB		1315		Water				✓	2	☆ EDD formats: H+H,
				Water						DSCA, NCDEQ
										☆ All TOP analyses to
										be on hold pending
										1633 results.

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: (I), II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
G De Mars	6/24/25 17:30	H+H			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	6-25-25 1700			6/25/25 1115	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				6/26/25 10:15	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 4.3	C: 4.1

NJ

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-229649-1

Login Number: 229649
List Number: 1
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

REAVES SPIC & SPAN

DC920056

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 1/29/2026 11:30:30 AM Revision 1

JOB DESCRIPTION

Reaves Spic & Span (DC920056)

JOB NUMBER

410-230445-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
1/29/2026 11:30:30 AM
Revision 1

Authorized for release by
David Barnhart, Senior Project Manager
David.Barnhart@et.eurofinsus.com
(717)656-2300

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-230445-1
Project/Site: Reaves Spic & Span (DC920056)

Qualifiers

LCMS

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-230445-1

REVISION

The report being provided is a revision of the original report sent on 7/24/2025. The report (revision 1) is being revised due to an update to remove sample DC920056-FB for analyte 9Cl-PF3ONS from the case narrative statement, due to having been included in error.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 6/26/2025 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.9°C and 4.8°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

PFAS
Method 1633A: Analyte 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS) is out of QC acceptance limits in the lower-level laboratory control spike (LLCS) in sample: DC920056-DUP (410-230445-3) and DC920056-EB-1 (410-230445-5). Since the recovery for this analyte is within QC acceptance limits in the laboratory control spike (LCS), the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Reaves Spic & Span (DC920056)

Job ID: 410-230445-1

Client Sample ID: DC920056-MW-3 — Lab Sample ID: 410-230445-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	6.2		3.3	0.92	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	3.0		1.7	0.50	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	3.3		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7		1.7	0.67	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	4.4		1.7	0.75	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	22		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	5.6		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.3		1.7	0.67	ng/L	1		1633A	Total/NA

Client Sample ID: DC920056-MW-1 — Lab Sample ID: 410-230445-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.2	J	3.5	0.97	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	4.0		1.8	0.53	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	4.4		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.0		1.8	0.70	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	4.1		1.8	0.79	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.0		1.8	0.44	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.8		1.8	0.70	ng/L	1		1633A	Total/NA

Client Sample ID: DC920056-DUP — Lab Sample ID: 410-230445-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.9	J	3.5	0.96	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	3.7		1.7	0.52	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	4.5		1.7	0.44	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.9		1.7	0.70	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	4.3		1.7	0.78	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.0		1.7	0.44	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.7		1.7	0.70	ng/L	1		1633A	Total/NA

Client Sample ID: DC920056-FB — Lab Sample ID: 410-230445-4

No Detections.

Client Sample ID: DC920056-EB-1 — Lab Sample ID: 410-230445-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: Reaves Spic & Span (DC920056)

Job ID: 410-230445-1

Client Sample ID: DC920056-MW-3
Date Collected: 06/24/25 13:08
Date Received: 06/26/25 10:15

Lab Sample ID: 410-230445-1
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.2**		3.3	0.92	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluoropentanoic acid (PFPeA)	**3.0**		1.7	0.50	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorohexanoic acid (PFHxA)	**3.3**		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluoroheptanoic acid (PFHpA)	**1.7**		1.7	0.67	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorooctanoic acid (PFOA)	**4.4**		1.7	0.75	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorobutanesulfonic acid (PFBS)	**22**		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluoropentanesulfonic acid (PFPeS)	**5.6**		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorohexanesulfonic acid (PFHxS)	**7.3**		1.7	0.67	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.1	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.50	ng/L		07/04/25 06:18	07/08/25 15:28	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	0.84	ng/L		07/04/25 06:18	07/08/25 15:28	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	0.84	ng/L		07/04/25 06:18	07/08/25 15:28	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	0.84	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.4	2.1	ng/L		07/04/25 06:18	07/08/25 15:28	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.4	3.3	ng/L		07/04/25 06:18	07/08/25 15:28	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/04/25 06:18	07/08/25 15:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1

Client Sample ID: DC920056-MW-3
Lab Sample ID: 410-230445-1
Date Collected: 06/24/25 13:08
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.42	ng/L		07/04/25 06:18	07/08/25 15:28	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	0.84	ng/L		07/04/25 06:18	07/08/25 15:28	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.4	2.3	ng/L		07/04/25 06:18	07/08/25 15:28	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.4	2.1	ng/L		07/04/25 06:18	07/08/25 15:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*5 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C5 PFPeA	*101*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C5 PFHxA	*90.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C4 PFHpA	*95.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C8 PFOA	*94.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C9 PFNA	*98.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C6 PFDA	*97.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C7 PFUnA	*87.6*		*30 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C2 PFTeDA	*75.1*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C3 PFBS	*99.6*		*40 - 135*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C3 PFHxS	*51.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C8 PFOS	*94.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C8 FOSA	*79.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
d3-NMeFOSAA	*85.6*		*40 - 170*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
d5-NEtFOSAA	*82.3*		*25 - 135*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C2 4:2 FTS	*95.4*		*40 - 200*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C2 6:2 FTS	*99.7*		*40 - 200*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C2 8:2 FTS	*91.2*		*40 - 300*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C3 HFPO-DA	*98.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
d7-N-MeFOSE-M	*64.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
d9-N-EtFOSE-M	*59.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
d5-NEtPFOSA	*63.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
d3-NMePFOSA	*65.9*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*
13C2 PFDoA	*80.2*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:28*	*1*

Client Sample ID: DC920056-MW-1
Lab Sample ID: 410-230445-2
Date Collected: 06/24/25 15:05
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.2**	**J**	3.5	0.97	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluoropentanoic acid (PFPeA)	**4.0**		1.8	0.53	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorohexanoic acid (PFHxA)	**4.4**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluoroheptanoic acid (PFHpA)	**3.0**		1.8	0.70	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorooctanoic acid (PFOA)	**4.1**		1.8	0.79	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1

Client Sample ID: DC920056-MW-1
Lab Sample ID: 410-230445-2
Date Collected: 06/24/25 15:05
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorobutanesulfonic acid (PFBS)	**5.0**		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorohexanesulfonic acid (PFHxS)	**9.8**		1.8	0.70	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	1.1	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	0.53	ng/L		07/04/25 06:18	07/08/25 15:41	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.88	ng/L		07/04/25 06:18	07/08/25 15:41	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	0.88	ng/L		07/04/25 06:18	07/08/25 15:41	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.88	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.8	2.2	ng/L		07/04/25 06:18	07/08/25 15:41	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.8	3.5	ng/L		07/04/25 06:18	07/08/25 15:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.8	1.2	ng/L		07/04/25 06:18	07/08/25 15:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	0.44	ng/L		07/04/25 06:18	07/08/25 15:41	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.88	ng/L		07/04/25 06:18	07/08/25 15:41	1

Client Sample ID: DC920056-MW-1
Lab Sample ID: 410-230445-2
Date Collected: 06/24/25 15:05
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.8	2.5	ng/L		07/04/25 06:18	07/08/25 15:41	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.8	2.2	ng/L		07/04/25 06:18	07/08/25 15:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.1*		*5 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C5 PFPeA	*99.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C5 PFHxA	*92.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C4 PFHpA	*90.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C8 PFOA	*97.4*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C9 PFNA	*98.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C6 PFDA	*84.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C7 PFUnA	*84.5*		*30 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C2 PFTeDA	*81.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C3 PFBS	*91.1*		*40 - 135*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C3 PFHxS	*92.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C8 PFOS	*93.9*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C8 FOSA	*83.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
d3-NMeFOSAA	*88.1*		*40 - 170*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
d5-NEtFOSAA	*83.6*		*25 - 135*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C2 4:2 FTS	*88.4*		*40 - 200*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C2 6:2 FTS	*89.5*		*40 - 200*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C2 8:2 FTS	*85.5*		*40 - 300*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C3 HFPO-DA	*94.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
d7-N-MeFOSE-M	*79.5*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
d9-N-EtFOSE-M	*76.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
d5-NEtPFOSA	*72.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
d3-NMePFOSA	*73.7*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*
13C2 PFDoA	*87.8*		*10 - 130*	*07/04/25 06:18*	*07/08/25 15:41*	*1*

Client Sample ID: DC920056-DUP
Lab Sample ID: 410-230445-3
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.9**	**J**	3.5	0.96	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluoropentanoic acid (PFPeA)	**3.7**		1.7	0.52	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorohexanoic acid (PFHxA)	**4.5**		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluoroheptanoic acid (PFHpA)	**2.9**		1.7	0.70	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorooctanoic acid (PFOA)	**4.3**		1.7	0.78	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorobutanesulfonic acid (PFBS)	**4.0**		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1

Client Sample ID: DC920056-DUP
Lab Sample ID: 410-230445-3

Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**8.7**		1.7	0.70	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.1	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.52	ng/L		07/09/25 15:04	07/10/25 20:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.87	ng/L		07/09/25 15:04	07/10/25 20:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	0.87	ng/L		07/09/25 15:04	07/10/25 20:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.87	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.7	2.2	ng/L		07/09/25 15:04	07/10/25 20:55	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.7	3.5	ng/L		07/09/25 15:04	07/10/25 20:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/09/25 15:04	07/10/25 20:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.44	ng/L		07/09/25 15:04	07/10/25 20:55	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.87	ng/L		07/09/25 15:04	07/10/25 20:55	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.7	2.4	ng/L		07/09/25 15:04	07/10/25 20:55	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.7	2.2	ng/L		07/09/25 15:04	07/10/25 20:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*103*		*5 - 130*	*07/09/25 15:04*	*07/10/25 20:55*	*1*
13C5 PFPeA	*117*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:55*	*1*
13C5 PFHxA	*96.2*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:55*	*1*
13C4 PFHpA	*98.7*		*40 - 130*	*07/09/25 15:04*	*07/10/25 20:55*	*1*

Client Sample ID: DC920056-DUP
Lab Sample ID: 410-230445-3
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOA	106		40 - 130	07/09/25 15:04	07/10/25 20:55	1
13C9 PFNA	106		40 - 130	07/09/25 15:04	07/10/25 20:55	1
13C6 PFDA	99.0		40 - 130	07/09/25 15:04	07/10/25 20:55	1
13C7 PFUnA	88.4		30 - 130	07/09/25 15:04	07/10/25 20:55	1
13C2 PFTeDA	74.9		10 - 130	07/09/25 15:04	07/10/25 20:55	1
13C3 PFBS	107		40 - 135	07/09/25 15:04	07/10/25 20:55	1
13C3 PFHxS	109		40 - 130	07/09/25 15:04	07/10/25 20:55	1
13C8 PFOS	106		40 - 130	07/09/25 15:04	07/10/25 20:55	1
13C8 FOSA	90.2		40 - 130	07/09/25 15:04	07/10/25 20:55	1
d3-NMeFOSAA	89.6		40 - 170	07/09/25 15:04	07/10/25 20:55	1
d5-NEtFOSAA	82.0		25 - 135	07/09/25 15:04	07/10/25 20:55	1
13C2 4:2 FTS	105		40 - 200	07/09/25 15:04	07/10/25 20:55	1
13C2 6:2 FTS	112		40 - 200	07/09/25 15:04	07/10/25 20:55	1
13C2 8:2 FTS	105		40 - 300	07/09/25 15:04	07/10/25 20:55	1
13C3 HFPO-DA	90.5		40 - 130	07/09/25 15:04	07/10/25 20:55	1
d7-N-MeFOSE-M	61.4		10 - 130	07/09/25 15:04	07/10/25 20:55	1
d9-N-EtFOSE-M	61.2		10 - 130	07/09/25 15:04	07/10/25 20:55	1
d5-NEtPFOSA	69.5		10 - 130	07/09/25 15:04	07/10/25 20:55	1
d3-NMePFOSA	74.2		10 - 130	07/09/25 15:04	07/10/25 20:55	1
13C2 PFDoA	84.2		10 - 130	07/09/25 15:04	07/10/25 20:55	1

Client Sample ID: DC920056-FB
Lab Sample ID: 410-230445-4
Date Collected: 06/24/25 15:20
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0	0.84	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.46	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.61	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.69	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.61	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.99	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.46	ng/L		07/16/25 16:16	07/16/25 22:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.76	ng/L		07/16/25 16:16	07/16/25 22:46	1

Client Sample ID: DC920056-FB
Lab Sample ID: 410-230445-4

Date Collected: 06/24/25 15:20
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.76	ng/L		07/16/25 16:16	07/16/25 22:46	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.76	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.6	1.9	ng/L		07/16/25 16:16	07/16/25 22:46	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.6	3.0	ng/L		07/16/25 16:16	07/16/25 22:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/16/25 16:16	07/16/25 22:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.38	ng/L		07/16/25 16:16	07/16/25 22:46	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.76	ng/L		07/16/25 16:16	07/16/25 22:46	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.6	2.1	ng/L		07/16/25 16:16	07/16/25 22:46	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.6	1.9	ng/L		07/16/25 16:16	07/16/25 22:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*78.6*		*5 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C5 PFPeA	*85.3*		*40 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C5 PFHxA	*87.3*		*40 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C4 PFHpA	*80.9*		*40 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C8 PFOA	*75.6*		*40 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C9 PFNA	*70.4*		*40 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C6 PFDA	*75.7*		*40 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C7 PFUnA	*70.3*		*30 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C2 PFTeDA	*59.6*		*10 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C3 PFBS	*75.1*		*40 - 135*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C3 PFHxS	*77.5*		*40 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C8 PFOS	*70.8*		*40 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
13C8 FOSA	*59.8*		*40 - 130*	*07/16/25 16:16*	*07/16/25 22:46*	*1*
d3-NMeFOSAA	*65.7*		*40 - 170*	*07/16/25 16:16*	*07/16/25 22:46*	*1*

Client Sample ID: DC920056-FB
Lab Sample ID: 410-230445-4
Date Collected: 06/24/25 15:20
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	63.6		25 - 135	07/16/25 16:16	07/16/25 22:46	1
13C2 4:2 FTS	85.5		40 - 200	07/16/25 16:16	07/16/25 22:46	1
13C2 6:2 FTS	83.9		40 - 200	07/16/25 16:16	07/16/25 22:46	1
13C2 8:2 FTS	82.6		40 - 300	07/16/25 16:16	07/16/25 22:46	1
13C3 HFPO-DA	70.2		40 - 130	07/16/25 16:16	07/16/25 22:46	1
d7-N-MeFOSE-M	56.3		10 - 130	07/16/25 16:16	07/16/25 22:46	1
d9-N-EtFOSE-M	52.9		10 - 130	07/16/25 16:16	07/16/25 22:46	1
d5-NEtPFOSA	43.5		10 - 130	07/16/25 16:16	07/16/25 22:46	1
d3-NMePFOSA	44.1		10 - 130	07/16/25 16:16	07/16/25 22:46	1
13C2 PFDoA	66.5		10 - 130	07/16/25 16:16	07/16/25 22:46	1

Client Sample ID: DC920056-EB-1
Lab Sample ID: 410-230445-5
Date Collected: 06/24/25 15:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0	0.84	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.46	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.61	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.68	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.61	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.99	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5	0.46	ng/L		07/09/25 15:04	07/10/25 21:22	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.0	0.76	ng/L		07/09/25 15:04	07/10/25 21:22	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.0	0.76	ng/L		07/09/25 15:04	07/10/25 21:22	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.76	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1

Client Sample ID: DC920056-EB-1
Lab Sample ID: 410-230445-5
Date Collected: 06/24/25 15:15
Matrix: Water
Date Received: 06/26/25 10:15

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.6	1.9	ng/L		07/09/25 15:04	07/10/25 21:22	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.6	3.0	ng/L		07/09/25 15:04	07/10/25 21:22	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/09/25 15:04	07/10/25 21:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	*- cn	1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.38	ng/L		07/09/25 15:04	07/10/25 21:22	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.0	0.76	ng/L		07/09/25 15:04	07/10/25 21:22	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.6	2.1	ng/L		07/09/25 15:04	07/10/25 21:22	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.6	1.9	ng/L		07/09/25 15:04	07/10/25 21:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*103*		*5 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C5 PFPeA	*126*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C5 PFHxA	*111*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C4 PFHpA	*113*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C8 PFOA	*100*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C9 PFNA	*110*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C6 PFDA	*86.3*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C7 PFUnA	*82.6*		*30 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C2 PFTeDA	*73.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C3 PFBS	*106*		*40 - 135*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C3 PFHxS	*103*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C8 PFOS	*103*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C8 FOSA	*87.7*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
d3-NMeFOSAA	*79.2*		*40 - 170*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
d5-NEtFOSAA	*76.3*		*25 - 135*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C2 4:2 FTS	*102*		*40 - 200*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C2 6:2 FTS	*109*		*40 - 200*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C2 8:2 FTS	*96.3*		*40 - 300*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C3 HFPO-DA	*106*		*40 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
d7-N-MeFOSE-M	*63.2*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
d9-N-EtFOSE-M	*62.4*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
d5-NEtPFOSA	*62.0*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
d3-NMePFOSA	*66.3*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*
13C2 PFDoA	*75.7*		*10 - 130*	*07/09/25 15:04*	*07/10/25 21:22*	*1*

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230445-1
Project/Site: Reaves Spic & Span (DC920056)

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-230445-1	DC920056-MW-3	102	101	90.9	95.2	94.7	98.3	97.6	87.6
410-230445-2	DC920056-MW-1	96.1	99.4	92.8	90.2	97.4	98.3	84.2	84.5
410-230445-3	DC920056-DUP	103	117	96.2	98.7	106	106	99.0	88.4
410-230445-4	DC920056-FB	78.6	85.3	87.3	80.9	75.6	70.4	75.7	70.3
410-230445-5	DC920056-EB-1	103	126	111	113	100	110	86.3	82.6
LCS 410-667147/15-A	Lab Control Sample	103	103	95.0	98.9	97.4	96.7	93.1	96.3
LCS 410-668972/14-A	Lab Control Sample	105	114	99.2	92.4	92.9	97.1	89.5	85.1
LCS 410-672203/3-A	Lab Control Sample	99.6	102	100	104	99.6	95.3	97.6	94.5
LCSD 410-667147/17-A	Lab Control Sample Dup	100	110	105	106	109	107	104	101
LCSD 410-668972/15-A	Lab Control Sample Dup	105	126	107	101	90.2	99.6	84.7	68.3
LCSD 410-672203/4-A	Lab Control Sample Dup	105	106	103	100	101	105	98.5	89.7
LLCS 410-667147/16-A	Lab Control Sample	105	104	95.8	103	97.5	100	98.7	95.8
LLCS 410-668972/16-A	Lab Control Sample	89.2	104	88.4	82.9	80.5	78.9	71.1	65.5
LLCS 410-672203/5-A	Lab Control Sample	92.8	93.7	97.9	95.6	93.6	89.3	87.9	88.4
MB 410-667147/14-A	Method Blank	99.1	99.6	87.5	78.1	77.2	75.3	73.7	69.1
MB 410-668972/13-A	Method Blank	99.2	109	107	102	96.8	100	88.8	82.2
MB 410-672203/2-A	Method Blank	96.0	103	103	97.0	87.4	96.1	88.7	82.8

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-230445-1	DC920056-MW-3	75.1	99.6	51.9	94.5	79.4	85.6	82.3	95.4
410-230445-2	DC920056-MW-1	81.4	91.1	92.9	93.9	83.1	88.1	83.6	88.4
410-230445-3	DC920056-DUP	74.9	107	109	106	90.2	89.6	82.0	105
410-230445-4	DC920056-FB	59.6	75.1	77.5	70.8	59.8	65.7	63.6	85.5
410-230445-5	DC920056-EB-1	73.3	106	103	103	87.7	79.2	76.3	102
LCS 410-667147/15-A	Lab Control Sample	80.0	102	93.5	93.5	85.8	90.2	87.2	97.7
LCS 410-668972/14-A	Lab Control Sample	69.7	91.9	93.0	93.5	87.4	80.4	82.0	96.1
LCS 410-672203/3-A	Lab Control Sample	79.9	106	105	95.7	88.0	105	101	114
LCSD 410-667147/17-A	Lab Control Sample Dup	104	99.0	100	103	86.2	94.3	92.0	93.5
LCSD 410-668972/15-A	Lab Control Sample Dup	57.7	93.5	90.9	92.6	83.3	76.1	67.9	104
LCSD 410-672203/4-A	Lab Control Sample Dup	68.1	113	109	95.0	85.7	97.6	104	120
LLCS 410-667147/16-A	Lab Control Sample	80.6	97.8	98.1	97.2	87.4	91.5	87.1	99.8
LLCS 410-668972/16-A	Lab Control Sample	45.2	78.1	80.2	76.5	73.1	69.1	64.8	85.8
LLCS 410-672203/5-A	Lab Control Sample	79.6	92.3	94.0	87.0	77.2	91.6	91.3	98.0
MB 410-667147/14-A	Method Blank	45.0	70.5	70.1	72.8	80.7	66.9	65.0	92.5
MB 410-668972/13-A	Method Blank	77.8	94.7	97.7	93.9	73.9	76.7	75.4	110
MB 410-672203/2-A	Method Blank	63.9	93.2	92.2	85.0	78.1	94.6	88.7	109

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-230445-1	DC920056-MW-3	99.7	91.2	98.5	64.7	59.3	63.7	65.9	80.2
410-230445-2	DC920056-MW-1	89.5	85.5	94.7	79.5	76.7	72.7	73.7	87.8
410-230445-3	DC920056-DUP	112	105	90.5	61.4	61.2	69.5	74.2	84.2
410-230445-4	DC920056-FB	83.9	82.6	70.2	56.3	52.9	43.5	44.1	66.5
410-230445-5	DC920056-EB-1	109	96.3	106	63.2	62.4	62.0	66.3	75.7
LCS 410-667147/15-A	Lab Control Sample	97.8	89.1	99.8	73.7	69.7	77.5	76.4	86.3
LCS 410-668972/14-A	Lab Control Sample	93.8	88.9	87.8	70.8	70.5	63.2	65.6	87.2
LCS 410-672203/3-A	Lab Control Sample	118	109	92.4	82.3	71.6	63.9	63.4	89.8
LCSD 410-667147/17-A	Lab Control Sample Dup	96.9	94.4	105	70.0	65.2	83.3	81.2	104

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230445-1
Project/Site: Reaves Spic & Span (DC920056)

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
LCSD 410-668972/15-A	Lab Control Sample Dup	105	88.4	106	52.8	48.9	56.0	59.5	66.2
LCSD 410-672203/4-A	Lab Control Sample Dup	124	118	89.1	79.6	75.2	60.7	60.5	80.3
LLCS 410-667147/16-A	Lab Control Sample	101	97.4	103	62.2	56.7	76.9	77.3	92.7
LLCS 410-668972/16-A	Lab Control Sample	83.0	74.2	86.1	48.5	45.2	55.8	57.2	59.2
LLCS 410-672203/5-A	Lab Control Sample	104	104	84.5	75.9	70.1	55.4	53.7	85.9
MB 410-667147/14-A	Method Blank	83.2	70.4	95.2	53.6	48.0	65.4	72.5	71.3
MB 410-668972/13-A	Method Blank	104	87.4	97.4	68.9	65.9	58.7	55.0	76.1
MB 410-672203/2-A	Method Blank	102	98.5	94.7	74.4	69.2	54.5	55.2	75.8

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-667147/14-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/04/25 06:18	07/08/25 09:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/04/25 06:18	07/08/25 09:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-667147/14-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 667147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/04/25 06:18	07/08/25 09:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/04/25 06:18	07/08/25 09:20	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.1*		*5 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C5 PFPeA	*99.6*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C5 PFHxA	*87.5*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C4 PFHpA	*78.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 PFOA	*77.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C9 PFNA	*75.3*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C6 PFDA	*73.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C7 PFUnA	*69.1*		*30 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 PFTeDA	*45.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 PFBS	*70.5*		*40 - 135*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 PFHxS	*70.1*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 PFOS	*72.8*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C8 FOSA	*80.7*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d3-NMeFOSAA	*66.9*		*40 - 170*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d5-NEtFOSAA	*65.0*		*25 - 135*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 4:2 FTS	*92.5*		*40 - 200*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 6:2 FTS	*83.2*		*40 - 200*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 8:2 FTS	*70.4*		*40 - 300*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C3 HFPO-DA	*95.2*		*40 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d7-N-MeFOSE-M	*53.6*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d9-N-EtFOSE-M	*48.0*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d5-NEtPFOSA	*65.4*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
d3-NMePFOSA	*72.5*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*
13C2 PFDoA	*71.3*		*10 - 130*	*07/04/25 06:18*	*07/08/25 09:20*	*1*

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	69.3		ng/L		87	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	34.4		ng/L		86	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	32.7		ng/L		82	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	32.1		ng/L		80	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	32.7		ng/L		82	70 - 150
Perfluorononanoic acid (PFNA)	40.0	30.7		ng/L		77	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	35.8		ng/L		89	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	30.7		ng/L		77	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	38.3		ng/L		96	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	31.8		ng/L		80	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.8		ng/L		77	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	27.1		ng/L		76	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	31.9		ng/L		85	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	29.2		ng/L		80	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	32.9		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	30.2		ng/L		81	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	30.2		ng/L		78	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	29.6		ng/L		77	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	24.0		ng/L		62	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	62.8		ng/L		84	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	66.4		ng/L		87	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	69.9		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	36.2		ng/L		91	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	33.8		ng/L		84	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.6		ng/L		84	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	31.7		ng/L		79	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.7		ng/L		84	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	180		ng/L		90	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	176		ng/L		88	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.0		ng/L		87	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	30.9		ng/L		82	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.1		ng/L		95	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.0		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.5		ng/L		81	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-667147/15-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	29.6		ng/L		79	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	27.1		ng/L		72	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	32.6		ng/L		92	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	68.4		ng/L		86	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	158		ng/L		79	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	164		ng/L		82	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*103*		*5 - 130*
13C5 PFPeA	*103*		*40 - 130*
13C5 PFHxA	*95.0*		*40 - 130*
13C4 PFHpA	*98.9*		*40 - 130*
13C8 PFOA	*97.4*		*40 - 130*
13C9 PFNA	*96.7*		*40 - 130*
13C6 PFDA	*93.1*		*40 - 130*
13C7 PFUnA	*96.3*		*30 - 130*
13C2 PFTeDA	*80.0*		*10 - 130*
13C3 PFBS	*102*		*40 - 135*
13C3 PFHxS	*93.5*		*40 - 130*
13C8 PFOS	*93.5*		*40 - 130*
13C8 FOSA	*85.8*		*40 - 130*
d3-NMeFOSAA	*90.2*		*40 - 170*
d5-NEtFOSAA	*87.2*		*25 - 135*
13C2 4:2 FTS	*97.7*		*40 - 200*
13C2 6:2 FTS	*97.8*		*40 - 200*
13C2 8:2 FTS	*89.1*		*40 - 300*
13C3 HFPO-DA	*99.8*		*40 - 130*
d7-N-MeFOSE-M	*73.7*		*10 - 130*
d9-N-EtFOSE-M	*69.7*		*10 - 130*
d5-NEtPFOSA	*77.5*		*10 - 130*
d3-NMePFOSA	*76.4*		*10 - 130*
13C2 PFDoA	*86.3*		*10 - 130*

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	69.6		ng/L		87	70 - 140	0	30
Perfluoropentanoic acid (PFPeA)			40.0	34.5		ng/L		86	65 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	31.5		ng/L		79	70 - 145	4	30
Perfluoroheptanoic acid (PFHpA)			40.0	32.0		ng/L		80	70 - 150	1	30
Perfluorooctanoic acid (PFOA)			40.0	32.7		ng/L		82	70 - 150	0	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	33.4		ng/L		84	70 - 150	8	30
Perfluorodecanoic acid (PFDA)	40.0	35.5		ng/L		89	70 - 140	1	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.1		ng/L		93	70 - 145	19	30
Perfluorododecanoic acid (PFDoA)	40.0	35.2		ng/L		88	70 - 140	8	30
Perfluorotridecanoic acid (PFTrDA)	40.0	34.0		ng/L		85	65 - 140	7	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	28.1		ng/L		70	60 - 140	9	30
Perfluorobutanesulfonic acid (PFBS)	35.5	30.8		ng/L		87	60 - 145	13	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	30.1		ng/L		80	65 - 140	6	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	28.4		ng/L		78	65 - 145	3	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.3		ng/L		87	70 - 150	1	30
Perfluorooctanesulfonic acid (PFOS)	37.2	31.7		ng/L		85	55 - 150	5	30
Perfluorononanesulfonic acid (PFNS)	38.5	30.9		ng/L		80	65 - 145	2	30
Perfluorodecanesulfonic acid (PFDS)	38.6	31.1		ng/L		81	60 - 145	5	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	30.0		ng/L		77	50 - 145	22	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	67.7		ng/L		90	70 - 145	7	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	68.8		ng/L		90	65 - 155	4	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	70.1		ng/L		91	60 - 150	0	30
Perfluorooctanesulfonamide (PFOSA)	40.0	39.3		ng/L		98	70 - 145	8	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	35.9		ng/L		90	60 - 150	6	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	35.8		ng/L		90	65 - 145	7	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	33.4		ng/L		84	50 - 140	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.5		ng/L		91	70 - 145	8	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	181		ng/L		90	70 - 145	0	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	178		ng/L		89	70 - 135	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.8		ng/L		89	70 - 140	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	30.7		ng/L		81	65 - 145	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	36.9		ng/L		92	55 - 140	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.4		ng/L		81	60 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-667147/17-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	36.8		ng/L		92	50 - 150	12	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	29.7		ng/L		79	70 - 155	0	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	28.6		ng/L		76	55 - 160	5	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	31.2		ng/L		87	70 - 140	4	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	67.5		ng/L		84	65 - 130	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	165		ng/L		82	70 - 135	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	150		ng/L		75	50 - 145	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*100*		*5 - 130*
13C5 PFPeA	*110*		*40 - 130*
13C5 PFHxA	*105*		*40 - 130*
13C4 PFHpA	*106*		*40 - 130*
13C8 PFOA	*109*		*40 - 130*
13C9 PFNA	*107*		*40 - 130*
13C6 PFDA	*104*		*40 - 130*
13C7 PFUnA	*101*		*30 - 130*
13C2 PFTeDA	*104*		*10 - 130*
13C3 PFBS	*99.0*		*40 - 135*
13C3 PFHxS	*100*		*40 - 130*
13C8 PFOS	*103*		*40 - 130*
13C8 FOSA	*86.2*		*40 - 130*
d3-NMeFOSAA	*94.3*		*40 - 170*
d5-NEtFOSAA	*92.0*		*25 - 135*
13C2 4:2 FTS	*93.5*		*40 - 200*
13C2 6:2 FTS	*96.9*		*40 - 200*
13C2 8:2 FTS	*94.4*		*40 - 300*
13C3 HFPO-DA	*105*		*40 - 130*
d7-N-MeFOSE-M	*70.0*		*10 - 130*
d9-N-EtFOSE-M	*65.2*		*10 - 130*
d5-NEtPFOSA	*83.3*		*10 - 130*
d3-NMePFOSA	*81.2*		*10 - 130*
13C2 PFDoA	*104*		*10 - 130*

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.14		ng/L		89	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	4.03		ng/L		101	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.66		ng/L		92	70 - 145

Client: Hart & Hickman, PC
Project/Site: Reaves Spic & Span (DC920056)

Job ID: 410-230445-1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.30		ng/L		82	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.74		ng/L		94	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.35		ng/L		84	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.99		ng/L		100	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.40		ng/L		85	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.96		ng/L		99	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.87		ng/L		97	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.78		ng/L		95	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.95		ng/L		83	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.49		ng/L		93	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.40		ng/L		93	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.37		ng/L		88	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.42		ng/L		92	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.04		ng/L		79	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.16		ng/L		82	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.58		ng/L		66	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.79		ng/L		90	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.04		ng/L		92	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.07		ng/L		92	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.01		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.58		ng/L		90	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.57		ng/L		89	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.30		ng/L		82	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.54		ng/L		89	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	20.6		ng/L		103	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.2		ng/L		96	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.94		ng/L		98	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.15		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.88		ng/L		97	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-667147/16-A
Matrix: Water
Analysis Batch: 668033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 667147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.48		ng/L		87	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.10		ng/L		103	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	2.97		ng/L		79	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.86		ng/L		76	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.45		ng/L		97	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.04		ng/L		101	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	18.4		ng/L		92	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	16.9		ng/L		84	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*95.8*		*40 - 130*
13C4 PFHpA	*103*		*40 - 130*
13C8 PFOA	*97.5*		*40 - 130*
13C9 PFNA	*100*		*40 - 130*
13C6 PFDA	*98.7*		*40 - 130*
13C7 PFUnA	*95.8*		*30 - 130*
13C2 PFTeDA	*80.6*		*10 - 130*
13C3 PFBS	*97.8*		*40 - 135*
13C3 PFHxS	*98.1*		*40 - 130*
13C8 PFOS	*97.2*		*40 - 130*
13C8 FOSA	*87.4*		*40 - 130*
d3-NMeFOSAA	*91.5*		*40 - 170*
d5-NEtFOSAA	*87.1*		*25 - 135*
13C2 4:2 FTS	*99.8*		*40 - 200*
13C2 6:2 FTS	*101*		*40 - 200*
13C2 8:2 FTS	*97.4*		*40 - 300*
13C3 HFPO-DA	*103*		*40 - 130*
d7-N-MeFOSE-M	*62.2*		*10 - 130*
d9-N-EtFOSE-M	*56.7*		*10 - 130*
d5-NEtPFOSA	*76.9*		*10 - 130*
d3-NMePFOSA	*77.3*		*10 - 130*
13C2 PFDoA	*92.7*		*10 - 130*

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/09/25 15:04	07/11/25 18:25	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/09/25 15:04	07/11/25 18:25	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/09/25 15:04	07/11/25 18:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-668972/13-A
Matrix: Water
Analysis Batch: 670041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/09/25 15:04	07/11/25 18:25	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/09/25 15:04	07/11/25 18:25	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.2*		*5 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C5 PFPeA	*109*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C5 PFHxA	*107*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C4 PFHpA	*102*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 PFOA	*96.8*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C9 PFNA	*100*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C6 PFDA	*88.8*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C7 PFUnA	*82.2*		*30 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 PFTeDA	*77.8*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 PFBS	*94.7*		*40 - 135*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 PFHxS	*97.7*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 PFOS	*93.9*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C8 FOSA	*73.9*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d3-NMeFOSAA	*76.7*		*40 - 170*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d5-NEtFOSAA	*75.4*		*25 - 135*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 4:2 FTS	*110*		*40 - 200*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 6:2 FTS	*104*		*40 - 200*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 8:2 FTS	*87.4*		*40 - 300*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C3 HFPO-DA	*97.4*		*40 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d7-N-MeFOSE-M	*68.9*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d9-N-EtFOSE-M	*65.9*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d5-NEtPFOSA	*58.7*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
d3-NMePFOSA	*55.0*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*
13C2 PFDoA	*76.1*		*10 - 130*	*07/09/25 15:04*	*07/11/25 18:25*	*1*

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	67.4		ng/L		84	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	33.5		ng/L		84	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	32.5		ng/L		81	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	36.9		ng/L		92	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	34.1		ng/L		85	70 - 150
Perfluorononanoic acid (PFNA)	40.0	33.3		ng/L		83	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	37.5		ng/L		94	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	41.0		ng/L		103	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	37.8		ng/L		94	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	36.3		ng/L		91	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	35.8		ng/L		90	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.6		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	34.0		ng/L		90	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	27.5		ng/L		75	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.8		ng/L		89	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	30.9		ng/L		83	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	28.6		ng/L		74	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	30.0		ng/L		78	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	21.4		ng/L		55	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	66.3		ng/L		88	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	65.0		ng/L		85	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	66.0		ng/L		86	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	38.6		ng/L		97	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	38.3		ng/L		96	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.6		ng/L		94	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.8		ng/L		94	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.6		ng/L		92	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	194		ng/L		97	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	182		ng/L		91	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.2		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	39.0		ng/L		103	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.2		ng/L		95	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	34.7		ng/L		87	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.8		ng/L		82	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-668972/14-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	28.4		ng/L		76	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	27.9		ng/L		74	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.7		ng/L		86	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	66.9		ng/L		84	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	152		ng/L		76	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	153		ng/L		76	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*114*		*40 - 130*
13C5 PFHxA	*99.2*		*40 - 130*
13C4 PFHpA	*92.4*		*40 - 130*
13C8 PFOA	*92.9*		*40 - 130*
13C9 PFNA	*97.1*		*40 - 130*
13C6 PFDA	*89.5*		*40 - 130*
13C7 PFUnA	*85.1*		*30 - 130*
13C2 PFTeDA	*69.7*		*10 - 130*
13C3 PFBS	*91.9*		*40 - 135*
13C3 PFHxS	*93.0*		*40 - 130*
13C8 PFOS	*93.5*		*40 - 130*
13C8 FOSA	*87.4*		*40 - 130*
d3-NMeFOSAA	*80.4*		*40 - 170*
d5-NEtFOSAA	*82.0*		*25 - 135*
13C2 4:2 FTS	*96.1*		*40 - 200*
13C2 6:2 FTS	*93.8*		*40 - 200*
13C2 8:2 FTS	*88.9*		*40 - 300*
13C3 HFPO-DA	*87.8*		*40 - 130*
d7-N-MeFOSE-M	*70.8*		*10 - 130*
d9-N-EtFOSE-M	*70.5*		*10 - 130*
d5-NEtPFOSA	*63.2*		*10 - 130*
d3-NMePFOSA	*65.6*		*10 - 130*
13C2 PFDoA	*87.2*		*10 - 130*

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	71.4		ng/L		89	70 - 140	6	30
Perfluoropentanoic acid (PFPeA)			40.0	33.7		ng/L		84	65 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	33.2		ng/L		83	70 - 145	2	30
Perfluoroheptanoic acid (PFHpA)			40.0	36.7		ng/L		92	70 - 150	0	30
Perfluorooctanoic acid (PFOA)			40.0	34.6		ng/L		87	70 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	34.2		ng/L		86	70 - 150	3	30
Perfluorodecanoic acid (PFDA)	40.0	36.9		ng/L		92	70 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	42.8		ng/L		107	70 - 145	4	30
Perfluorododecanoic acid (PFDoA)	40.0	41.7		ng/L		104	70 - 140	10	30
Perfluorotridecanoic acid (PFTrDA)	40.0	35.9		ng/L		90	65 - 140	1	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.3		ng/L		76	60 - 140	17	30
Perfluorobutanesulfonic acid (PFBS)	35.5	30.6		ng/L		86	60 - 145	0	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	36.7		ng/L		98	65 - 140	8	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	30.4		ng/L		83	65 - 145	10	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	34.6		ng/L		91	70 - 150	2	30
Perfluorooctanesulfonic acid (PFOS)	37.2	31.9		ng/L		86	55 - 150	3	30
Perfluorononanesulfonic acid (PFNS)	38.5	26.4		ng/L		69	65 - 145	8	30
Perfluorodecanesulfonic acid (PFDS)	38.6	25.3		ng/L		66	60 - 145	17	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	20.7		ng/L		53	50 - 145	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	65.4		ng/L		87	70 - 145	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	63.1		ng/L		83	65 - 155	3	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	65.4		ng/L		85	60 - 150	1	30
Perfluorooctanesulfonamide (PFOSA)	40.0	38.9		ng/L		97	70 - 145	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.4		ng/L		98	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	39.3		ng/L		98	65 - 145	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	34.3		ng/L		86	50 - 140	10	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.8		ng/L		92	70 - 145	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	192		ng/L		96	70 - 145	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	179		ng/L		89	70 - 135	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	28.5		ng/L		95	70 - 140	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.1		ng/L		93	65 - 145	11	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	39.5		ng/L		99	55 - 140	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	33.5		ng/L		84	60 - 150	4	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-668972/15-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	39.1		ng/L		98	50 - 150	18	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	27.5		ng/L		73	70 - 155	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	24.0		ng/L		64	55 - 160	15	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.5		ng/L		85	70 - 140	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	69.8		ng/L		87	65 - 130	4	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	168		ng/L		84	70 - 135	10	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	139		ng/L		69	50 - 145	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*126*		*40 - 130*
13C5 PFHxA	*107*		*40 - 130*
13C4 PFHpA	*101*		*40 - 130*
13C8 PFOA	*90.2*		*40 - 130*
13C9 PFNA	*99.6*		*40 - 130*
13C6 PFDA	*84.7*		*40 - 130*
13C7 PFUnA	*68.3*		*30 - 130*
13C2 PFTeDA	*57.7*		*10 - 130*
13C3 PFBS	*93.5*		*40 - 135*
13C3 PFHxS	*90.9*		*40 - 130*
13C8 PFOS	*92.6*		*40 - 130*
13C8 FOSA	*83.3*		*40 - 130*
d3-NMeFOSAA	*76.1*		*40 - 170*
d5-NEtFOSAA	*67.9*		*25 - 135*
13C2 4:2 FTS	*104*		*40 - 200*
13C2 6:2 FTS	*105*		*40 - 200*
13C2 8:2 FTS	*88.4*		*40 - 300*
13C3 HFPO-DA	*106*		*40 - 130*
d7-N-MeFOSE-M	*52.8*		*10 - 130*
d9-N-EtFOSE-M	*48.9*		*10 - 130*
d5-NEtPFOSA	*56.0*		*10 - 130*
d3-NMePFOSA	*59.5*		*10 - 130*
13C2 PFDoA	*66.2*		*10 - 130*

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	6.82		ng/L		85	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	2.97		ng/L		74	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.46		ng/L		87	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.74		ng/L		94	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.44		ng/L		111	70 - 150
Perfluorononanoic acid (PFNA)	4.00	5.42		ng/L		135	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.82		ng/L		120	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.65		ng/L		91	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.86		ng/L		97	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.73		ng/L		93	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.97		ng/L		99	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.99		ng/L		84	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.33		ng/L		89	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	2.85		ng/L		78	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.28		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.37		ng/L		91	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	2.51		ng/L		65	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	2.71		ng/L		70	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.03		ng/L		52	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.89		ng/L		92	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	6.37		ng/L		84	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	6.56		ng/L		85	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.55	I	ng/L		89	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.93		ng/L		98	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.12		ng/L		103	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.22		ng/L		80	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.54		ng/L		88	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.2		ng/L		106	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.3		ng/L		97	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.73		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.16		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.76		ng/L		94	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-668972/16-A
Matrix: Water
Analysis Batch: 669314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668972

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.20		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.61		ng/L		90	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	2.57	*-	ng/L		69	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.42		ng/L		64	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	2.63		ng/L		74	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.60		ng/L		83	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	15.7		ng/L		79	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	13.7		ng/L		68	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*89.2*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*88.4*		*40 - 130*
13C4 PFHpA	*82.9*		*40 - 130*
13C8 PFOA	*80.5*		*40 - 130*
13C9 PFNA	*78.9*		*40 - 130*
13C6 PFDA	*71.1*		*40 - 130*
13C7 PFUnA	*65.5*		*30 - 130*
13C2 PFTeDA	*45.2*		*10 - 130*
13C3 PFBS	*78.1*		*40 - 135*
13C3 PFHxS	*80.2*		*40 - 130*
13C8 PFOS	*76.5*		*40 - 130*
13C8 FOSA	*73.1*		*40 - 130*
d3-NMeFOSAA	*69.1*		*40 - 170*
d5-NEtFOSAA	*64.8*		*25 - 135*
13C2 4:2 FTS	*85.8*		*40 - 200*
13C2 6:2 FTS	*83.0*		*40 - 200*
13C2 8:2 FTS	*74.2*		*40 - 300*
13C3 HFPO-DA	*86.1*		*40 - 130*
d7-N-MeFOSE-M	*48.5*		*10 - 130*
d9-N-EtFOSE-M	*45.2*		*10 - 130*
d5-NEtPFOSA	*55.8*		*10 - 130*
d3-NMePFOSA	*57.2*		*10 - 130*
13C2 PFDoA	*59.2*		*10 - 130*

Lab Sample ID: MB 410-672203/2-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672203

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/16/25 16:16	07/16/25 21:52	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-672203/2-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672203

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/16/25 16:16	07/16/25 21:52	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/16/25 16:16	07/16/25 21:52	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/16/25 16:16	07/16/25 21:52	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.710	J	2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/16/25 16:16	07/16/25 21:52	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/16/25 16:16	07/16/25 21:52	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/16/25 16:16	07/16/25 21:52	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-672203/2-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672203

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/16/25 16:16	07/16/25 21:52	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/16/25 16:16	07/16/25 21:52	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/16/25 16:16	07/16/25 21:52	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/16/25 16:16	07/16/25 21:52	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.0*		*5 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C5 PFPeA	*103*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C5 PFHxA	*103*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C4 PFHpA	*97.0*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C8 PFOA	*87.4*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C9 PFNA	*96.1*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C6 PFDA	*88.7*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C7 PFUnA	*82.8*		*30 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C2 PFTeDA	*63.9*		*10 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C3 PFBS	*93.2*		*40 - 135*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C3 PFHxS	*92.2*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C8 PFOS	*85.0*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C8 FOSA	*78.1*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
d3-NMeFOSAA	*94.6*		*40 - 170*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
d5-NEtFOSAA	*88.7*		*25 - 135*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C2 4:2 FTS	*109*		*40 - 200*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C2 6:2 FTS	*102*		*40 - 200*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C2 8:2 FTS	*98.5*		*40 - 300*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C3 HFPO-DA	*94.7*		*40 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
d7-N-MeFOSE-M	*74.4*		*10 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
d9-N-EtFOSE-M	*69.2*		*10 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
d5-NEtPFOSA	*54.5*		*10 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
d3-NMePFOSA	*55.2*		*10 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*
13C2 PFDoA	*75.8*		*10 - 130*	*07/16/25 16:16*	*07/16/25 21:52*	*1*

Lab Sample ID: LCS 410-672203/3-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672203

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	71.2		ng/L		89	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	38.4		ng/L		96	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	32.6		ng/L		82	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	32.9		ng/L		82	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	34.2		ng/L		86	70 - 150
Perfluorononanoic acid (PFNA)	40.0	34.4		ng/L		86	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	37.0		ng/L		92	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-672203/3-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672203

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	38.2		ng/L		95	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	35.9		ng/L		90	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	31.4		ng/L		79	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.5		ng/L		76	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.9		ng/L		87	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	33.9		ng/L		90	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	34.1		ng/L		93	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	31.2		ng/L		82	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	31.9		ng/L		86	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	28.3		ng/L		74	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	26.8		ng/L		70	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	24.7		ng/L		64	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	61.5		ng/L		82	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	65.7		ng/L		86	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	74.2		ng/L		97	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	31.9		ng/L		80	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	40.4		ng/L		101	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	36.9		ng/L		92	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	34.5		ng/L		86	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	34.1		ng/L		85	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	169		ng/L		84	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	177		ng/L		88	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	28.9		ng/L		96	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.9		ng/L		95	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	33.4		ng/L		84	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	37.3		ng/L		93	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	33.5		ng/L		84	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-672203/3-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672203

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.5		ng/L		82	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	24.1		ng/L		64	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	32.7		ng/L		92	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	66.2		ng/L		83	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	166		ng/L		83	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	154		ng/L		77	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*99.6*		*5 - 130*
13C5 PFPeA	*102*		*40 - 130*
13C5 PFHxA	*100*		*40 - 130*
13C4 PFHpA	*104*		*40 - 130*
13C8 PFOA	*99.6*		*40 - 130*
13C9 PFNA	*95.3*		*40 - 130*
13C6 PFDA	*97.6*		*40 - 130*
13C7 PFUnA	*94.5*		*30 - 130*
13C2 PFTeDA	*79.9*		*10 - 130*
13C3 PFBS	*106*		*40 - 135*
13C3 PFHxS	*105*		*40 - 130*
13C8 PFOS	*95.7*		*40 - 130*
13C8 FOSA	*88.0*		*40 - 130*
d3-NMeFOSAA	*105*		*40 - 170*
d5-NEtFOSAA	*101*		*25 - 135*
13C2 4:2 FTS	*114*		*40 - 200*
13C2 6:2 FTS	*118*		*40 - 200*
13C2 8:2 FTS	*109*		*40 - 300*
13C3 HFPO-DA	*92.4*		*40 - 130*
d7-N-MeFOSE-M	*82.3*		*10 - 130*
d9-N-EtFOSE-M	*71.6*		*10 - 130*
d5-NEtPFOSA	*63.9*		*10 - 130*
d3-NMePFOSA	*63.4*		*10 - 130*
13C2 PFDoA	*89.8*		*10 - 130*

Lab Sample ID: LCSD 410-672203/4-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672203

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	71.1		ng/L		89	70 - 140	0	30
Perfluoropentanoic acid (PFPeA)			40.0	34.4		ng/L		86	65 - 135	11	30
Perfluorohexanoic acid (PFHxA)			40.0	31.6		ng/L		79	70 - 145	3	30
Perfluoroheptanoic acid (PFHpA)			40.0	36.4		ng/L		91	70 - 150	10	30
Perfluorooctanoic acid (PFOA)			40.0	32.5		ng/L		81	70 - 150	5	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-672203/4-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672203

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)			40.0	35.6		ng/L		89	70 - 150	3	30
Perfluorodecanoic acid (PFDA)			40.0	37.7		ng/L		94	70 - 140	2	30
Perfluoroundecanoic acid (PFUnA)			40.0	34.8		ng/L		87	70 - 145	9	30
Perfluorododecanoic acid (PFDoA)			40.0	34.9		ng/L		87	70 - 140	3	30
Perfluorotridecanoic acid (PFTrDA)			40.0	32.7		ng/L		82	65 - 140	4	30
Perfluorotetradecanoic acid (PFTeDA)			40.0	34.3		ng/L		86	60 - 140	12	30
Perfluorobutanesulfonic acid (PFBS)			35.5	31.5		ng/L		89	60 - 145	2	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	33.8		ng/L		90	65 - 140	0	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	33.0		ng/L		91	65 - 145	3	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	34.0		ng/L		89	70 - 150	9	30
Perfluorooctanesulfonic acid (PFOS)			37.2	33.1		ng/L		89	55 - 150	4	30
Perfluorononanesulfonic acid (PFNS)			38.5	27.5		ng/L		71	65 - 145	3	30
Perfluorodecanesulfonic acid (PFDS)			38.6	24.6		ng/L		64	60 - 145	9	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	22.7		ng/L		58	50 - 145	9	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			75.0	68.5		ng/L		91	70 - 145	11	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			76.2	67.5		ng/L		89	65 - 155	3	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			76.8	73.2		ng/L		95	60 - 150	1	30
Perfluorooctanesulfonamide (PFOSA)			40.0	33.5		ng/L		84	70 - 145	5	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			40.0	40.9		ng/L		102	60 - 150	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			40.0	37.4		ng/L		94	65 - 145	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	37.1		ng/L		93	50 - 140	7	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	34.2		ng/L		85	70 - 145	0	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			200	176		ng/L		88	70 - 145	4	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			200	172		ng/L		86	70 - 135	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			30.0	28.6		ng/L		95	70 - 140	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	38.1		ng/L		101	65 - 145	6	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			40.0	31.9		ng/L		80	55 - 140	5	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			40.0	34.5		ng/L		86	60 - 150	8	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-672203/4-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672203

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	32.0		ng/L		80	50 - 150	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	29.7		ng/L		79	70 - 155	3	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	22.6		ng/L		60	55 - 160	6	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	36.5		ng/L		102	70 - 140	11	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	64.8		ng/L		81	65 - 130	2	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	149		ng/L		75	70 - 135	11	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	149		ng/L		75	50 - 145	3	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*105*		*5 - 130*
13C5 PFPeA	*106*		*40 - 130*
13C5 PFHxA	*103*		*40 - 130*
13C4 PFHpA	*100*		*40 - 130*
13C8 PFOA	*101*		*40 - 130*
13C9 PFNA	*105*		*40 - 130*
13C6 PFDA	*98.5*		*40 - 130*
13C7 PFUnA	*89.7*		*30 - 130*
13C2 PFTeDA	*68.1*		*10 - 130*
13C3 PFBS	*113*		*40 - 135*
13C3 PFHxS	*109*		*40 - 130*
13C8 PFOS	*95.0*		*40 - 130*
13C8 FOSA	*85.7*		*40 - 130*
d3-NMeFOSAA	*97.6*		*40 - 170*
d5-NEtFOSAA	*104*		*25 - 135*
13C2 4:2 FTS	*120*		*40 - 200*
13C2 6:2 FTS	*124*		*40 - 200*
13C2 8:2 FTS	*118*		*40 - 300*
13C3 HFPO-DA	*89.1*		*40 - 130*
d7-N-MeFOSE-M	*79.6*		*10 - 130*
d9-N-EtFOSE-M	*75.2*		*10 - 130*
d5-NEtPFOSA	*60.7*		*10 - 130*
d3-NMePFOSA	*60.5*		*10 - 130*
13C2 PFDoA	*80.3*		*10 - 130*

Lab Sample ID: LLCS 410-672203/5-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672203

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	8.11		ng/L		101	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	4.24		ng/L		106	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.92		ng/L		98	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-672203/5-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672203

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	4.16		ng/L		104	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.71		ng/L		93	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.99		ng/L		100	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.80		ng/L		95	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.05		ng/L		101	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.48		ng/L		112	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.81		ng/L		95	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.42		ng/L		86	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.69		ng/L		104	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.58		ng/L		95	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.98		ng/L		109	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.53		ng/L		92	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	4.03		ng/L		108	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.53		ng/L		92	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.39		ng/L		88	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.87		ng/L		74	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.37		ng/L		98	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.62		ng/L		100	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.21		ng/L		94	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.05		ng/L		101	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.42		ng/L		110	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.86		ng/L		96	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.94		ng/L		98	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.84		ng/L		96	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	20.3		ng/L		101	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	20.3		ng/L		101	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.28		ng/L		109	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	4.21		ng/L		111	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.69		ng/L		92	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-672203/5-A
Matrix: Water
Analysis Batch: 672179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672203

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.93		ng/L		98	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.74		ng/L		93	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	3.42		ng/L		92	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	3.19		ng/L		85	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.60		ng/L		101	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.95		ng/L		87	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	19.9		ng/L		99	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	16.9		ng/L		84	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*92.8*		*5 - 130*
13C5 PFPeA	*93.7*		*40 - 130*
13C5 PFHxA	*97.9*		*40 - 130*
13C4 PFHpA	*95.6*		*40 - 130*
13C8 PFOA	*93.6*		*40 - 130*
13C9 PFNA	*89.3*		*40 - 130*
13C6 PFDA	*87.9*		*40 - 130*
13C7 PFUnA	*88.4*		*30 - 130*
13C2 PFTeDA	*79.6*		*10 - 130*
13C3 PFBS	*92.3*		*40 - 135*
13C3 PFHxS	*94.0*		*40 - 130*
13C8 PFOS	*87.0*		*40 - 130*
13C8 FOSA	*77.2*		*40 - 130*
d3-NMeFOSAA	*91.6*		*40 - 170*
d5-NEtFOSAA	*91.3*		*25 - 135*
13C2 4:2 FTS	*98.0*		*40 - 200*
13C2 6:2 FTS	*104*		*40 - 200*
13C2 8:2 FTS	*104*		*40 - 300*
13C3 HFPO-DA	*84.5*		*40 - 130*
d7-N-MeFOSE-M	*75.9*		*10 - 130*
d9-N-EtFOSE-M	*70.1*		*10 - 130*
d5-NEtPFOSA	*55.4*		*10 - 130*
d3-NMePFOSA	*53.7*		*10 - 130*
13C2 PFDoA	*85.9*		*10 - 130*

LCMS

Prep Batch: 667147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230445-1	DC920056-MW-3	Total/NA	Water	1633A	
410-230445-2	DC920056-MW-1	Total/NA	Water	1633A	
MB 410-667147/14-A	Method Blank	Total/NA	Water	1633A	
LCS 410-667147/15-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-667147/17-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-667147/16-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 668033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230445-1	DC920056-MW-3	Total/NA	Water	1633A	667147
410-230445-2	DC920056-MW-1	Total/NA	Water	1633A	667147
MB 410-667147/14-A	Method Blank	Total/NA	Water	1633A	667147
LCS 410-667147/15-A	Lab Control Sample	Total/NA	Water	1633A	667147
LCSD 410-667147/17-A	Lab Control Sample Dup	Total/NA	Water	1633A	667147
LLCS 410-667147/16-A	Lab Control Sample	Total/NA	Water	1633A	667147

Prep Batch: 668972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230445-3	DC920056-DUP	Total/NA	Water	1633A	
410-230445-5	DC920056-EB-1	Total/NA	Water	1633A	
MB 410-668972/13-A	Method Blank	Total/NA	Water	1633A	
LCS 410-668972/14-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-668972/15-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-668972/16-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 669314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230445-3	DC920056-DUP	Total/NA	Water	1633A	668972
410-230445-5	DC920056-EB-1	Total/NA	Water	1633A	668972
LCS 410-668972/14-A	Lab Control Sample	Total/NA	Water	1633A	668972
LCSD 410-668972/15-A	Lab Control Sample Dup	Total/NA	Water	1633A	668972
LLCS 410-668972/16-A	Lab Control Sample	Total/NA	Water	1633A	668972

Analysis Batch: 670041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-668972/13-A	Method Blank	Total/NA	Water	1633A	668972

Analysis Batch: 672179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230445-4	DC920056-FB	Total/NA	Water	1633A	672203
MB 410-672203/2-A	Method Blank	Total/NA	Water	1633A	672203
LCS 410-672203/3-A	Lab Control Sample	Total/NA	Water	1633A	672203
LCSD 410-672203/4-A	Lab Control Sample Dup	Total/NA	Water	1633A	672203
LLCS 410-672203/5-A	Lab Control Sample	Total/NA	Water	1633A	672203

Prep Batch: 672203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230445-4	DC920056-FB	Total/NA	Water	1633A	
MB 410-672203/2-A	Method Blank	Total/NA	Water	1633A	
LCS 410-672203/3-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-672203/4-A	Lab Control Sample Dup	Total/NA	Water	1633A	

LCMS (Continued)

Prep Batch: 672203 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 410-672203/5-A	Lab Control Sample	Total/NA	Water	1633A	

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-230445-1
Project/Site: Reaves Spic & Span (DC920056)

Client Sample ID: DC920056-MW-3
Lab Sample ID: 410-230445-1
Date Collected: 06/24/25 13:08
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 15:28

Client Sample ID: DC920056-MW-1
Lab Sample ID: 410-230445-2
Date Collected: 06/24/25 15:05
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			667147	M4QQ	ELLE	07/04/25 06:18
Total/NA	Analysis	1633A		1	668033	P7EB	ELLE	07/08/25 15:41

Client Sample ID: DC920056-DUP
Lab Sample ID: 410-230445-3
Date Collected: 06/24/25 00:00
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 20:55

Client Sample ID: DC920056-FB
Lab Sample ID: 410-230445-4
Date Collected: 06/24/25 15:20
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			672203	MSH2	ELLE	07/16/25 16:16
Total/NA	Analysis	1633A		1	672179	UUV6	ELLE	07/16/25 22:46

Client Sample ID: DC920056-EB-1
Lab Sample ID: 410-230445-5
Date Collected: 06/24/25 15:15
Matrix: Water
Date Received: 06/26/25 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			668972	MSH2	ELLE	07/09/25 15:04
Total/NA	Analysis	1633A		1	669314	LDU5	ELLE	07/10/25 21:22

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230445-1
Project/Site: Reaves Spic & Span (DC920056)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	09-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230445-1
Project/Site: Reaves Spic & Span (DC920056)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: Reaves Spic & Span (DC920056)

Job ID: 410-230445-1

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: Reaves Spic & Span (DC920056)

Job ID: 410-230445-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-230445-1	DC920056-MW-3	Water	06/24/25 13:08	06/26/25 10:15	North Carolina
410-230445-2	DC920056-MW-1	Water	06/24/25 15:05	06/26/25 10:15	North Carolina
410-230445-3	DC920056-DUP	Water	06/24/25 00:00	06/26/25 10:15	North Carolina
410-230445-4	DC920056-FB	Water	06/24/25 15:20	06/26/25 10:15	North Carolina
410-230445-5	DC920056-EB-1	Water	06/24/25 15:15	06/26/25 10:15	North Carolina

410-230445 Chain of Custody

vironme

Chain of Custody Record

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Sampler: Nick Stone & Rachel Schmidt	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159676-44152.1
Mandy Klaben	Phone: 919-847-4241	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:			Job #: DSO.PFAS-3
Address: 3921 Sunset Ridge Rd Suite 301	Due Date Requested:			
City: Raleigh	TAT Requested (days): H+H Standard (10 days)			
State, Zip: NC, 27607	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DSO.PFAS			
Email: mklaben@harthickman.com	WO #:			
Project Name: Reaves Spic & Span (DC920056)	Project #: 41025876			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: N - None

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC920056-MW-3	6/24/25	1308	G	Water	N	N	X	X	3	*Please report J flags
DC920056-MW-1	6/24/25	1505	G	Water	N	N	X	X	3	& report non-detects
DC920056-DUP	6/24/25		G	Water	N	N		X	2	as <MDL
				Water						*EDD formats: H+H,
DC920056-FB	6/24/25	1520	G	Water	N	N		X	2	DSCA, NCDEQ
DC920056-EB-1	6/24/25	1515	G	Water	N	N		X	2	* Hold TOPS analysis
~~DC920056-EB-2~~ (RES)				Water						until further notice*

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by: Rachel Schmidt	Date/Time: 6/24/25 1630	Company	Received by: Brent Mabe	Date/Time: 6/25/25 1453	Company: Eurofins		
Relinquished by: Brent Mabe	Date/Time: 6/25/25 1645	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/26/25 0815	Company: ELLET		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.2,3.4-4.8 C3.4-4.8

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-230445-1

Login Number: 230445
List Number: 1
Creator: Leakway, Christian

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

WASH ZONE

DC600093

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/15/2025 6:10:21 PM

JOB DESCRIPTION

NC DSCA PFAS Pilot Study

JOB NUMBER

410-230178-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/15/2025 6:10:21 PM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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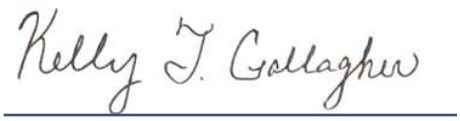


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-230178-1
Project/Site: NC DSCA PFAS Pilot Study

Qualifiers

LCMS

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-230178-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/1/2025 11:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.8°C and 5.6°C.

Receipt Exceptions
All backup containers for water samples received for 1633 PFAS analysis were frozen after receipt.

DC600093-MW-1 (410-230178-1), DC600093-MW-4S (410-230178-2), DC600093-DUP-1 (410-230178-3), DC600093-EB-2 (410-230178-4), DC600093-FB (410-230178-5) and DC600093-EB-1 (410-230178-6)

PFAS
Method 1633A: Target analyte Perfluorododecanesulfonic acid (PFDoS) has a relative percentage deviation (%RPD) outside of the QC acceptance limit in the Laboratory Control Spike Duplicate associated with samples DC600093-MW-1 (410-230178-1), DC600093-MW-4S (410-230178-2), DC600093-DUP-1 (410-230178-3), DC600093-EB-2 (410-230178-4), DC600093-FB (410-230178-5) and DC600093-EB-1 (410-230178-6) . Since the individual recoveries meet acceptance limits and the analyte is not detected, the data is reported.

Method 1633A: The transition mass ratio for Perfluorooctanesulfonic acid (PFOS) in sample DC600093-MW-1 (410-230178-1) in analytical batch 410-670538 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-230178-1

Client Sample ID: DC600093-MW-1 — Lab Sample ID: 410-230178-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.4	J	3.9	1.1	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	11		2.0	0.59	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	9.6		2.0	0.49	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.5		2.0	0.78	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	7.3		2.0	0.88	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.9		2.0	0.49	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.2	J	2.0	0.49	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.1		2.0	0.78	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.0	I cn	2.0	1.3	ng/L	1		1633A	Total/NA

Client Sample ID: DC600093-MW-4S — Lab Sample ID: 410-230178-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.4		3.4	0.93	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	21		1.7	0.51	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	18		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	9.6		1.7	0.68	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	31		1.7	0.76	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	0.98	J	1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.5		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.9		1.7	0.68	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	16		1.7	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC600093-DUP-1 — Lab Sample ID: 410-230178-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.5		3.1	0.85	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	22		1.5	0.46	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	19		1.5	0.39	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	10		1.5	0.62	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	30		1.5	0.69	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	0.94	J	1.5	0.39	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	8.9		1.5	0.39	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	17		1.5	0.62	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.68	J	1.5	0.39	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	15		1.5	1.0	ng/L	1		1633A	Total/NA

Client Sample ID: DC600093-EB-2 — Lab Sample ID: 410-230178-4

No Detections.

Client Sample ID: DC600093-FB — Lab Sample ID: 410-230178-5

No Detections.

Client Sample ID: DC600093-EB-1 — Lab Sample ID: 410-230178-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-230178-1

Client Sample ID: DC600093-MW-1
Date Collected: 06/30/25 09:45
Date Received: 07/01/25 11:25

Lab Sample ID: 410-230178-1
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.4**	**J**	3.9	1.1	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluoropentanoic acid (PFPeA)	**11**		2.0	0.59	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorohexanoic acid (PFHxA)	**9.6**		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluoroheptanoic acid (PFHpA)	**2.5**		2.0	0.78	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorooctanoic acid (PFOA)	**7.3**		2.0	0.88	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorobutanesulfonic acid (PFBS)	**5.9**		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluoropentanesulfonic acid (PFPeS)	**1.2**	**J**	2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorohexanesulfonic acid (PFHxS)	**6.1**		2.0	0.78	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorooctanesulfonic acid (PFOS)	**3.0**	**I cn**	2.0	1.3	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	2.0	0.59	ng/L		07/14/25 06:25	07/15/25 04:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.9	0.98	ng/L		07/14/25 06:25	07/15/25 04:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.9	0.98	ng/L		07/14/25 06:25	07/15/25 04:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.9	0.98	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.8	2.4	ng/L		07/14/25 06:25	07/15/25 04:06	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.8	3.9	ng/L		07/14/25 06:25	07/15/25 04:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/14/25 06:25	07/15/25 04:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1

Client Sample ID: DC600093-MW-1

Lab Sample ID: 410-230178-1

Date Collected: 06/30/25 09:45

Matrix: Water

Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.49	ng/L		07/14/25 06:25	07/15/25 04:06	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.9	0.98	ng/L		07/14/25 06:25	07/15/25 04:06	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		9.8	2.7	ng/L		07/14/25 06:25	07/15/25 04:06	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.8	2.4	ng/L		07/14/25 06:25	07/15/25 04:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*78.2*		*5 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C5 PFPeA	*78.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C5 PFHxA	*72.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C4 PFHpA	*71.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C8 PFOA	*74.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C9 PFNA	*78.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C6 PFDA	*75.8*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C7 PFUnA	*73.6*		*30 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C2 PFTeDA	*74.4*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C3 PFBS	*92.6*		*40 - 135*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C3 PFHxS	*85.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C8 PFOS	*88.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C8 FOSA	*81.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
d3-NMeFOSAA	*63.6*		*40 - 170*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
d5-NEtFOSAA	*64.1*		*25 - 135*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C2 4:2 FTS	*83.0*		*40 - 200*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C2 6:2 FTS	*77.3*		*40 - 200*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C2 8:2 FTS	*77.0*		*40 - 300*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C3 HFPO-DA	*71.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
d7-N-MeFOSE-M	*64.8*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
d9-N-EtFOSE-M	*61.6*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
d5-NEtPFOSA	*70.7*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
d3-NMePFOSA	*63.7*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*
13C2 PFDoA	*65.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:06*	*1*

Client Sample ID: DC600093-MW-4S

Lab Sample ID: 410-230178-2

Date Collected: 06/30/25 12:40

Matrix: Water

Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.4**		3.4	0.93	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluoropentanoic acid (PFPeA)	**21**		1.7	0.51	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorohexanoic acid (PFHxA)	**18**		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluoroheptanoic acid (PFHpA)	**9.6**		1.7	0.68	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorooctanoic acid (PFOA)	**31**		1.7	0.76	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorononanoic acid (PFNA)	**0.98**	**J**	1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1

Client Sample ID: DC600093-MW-4S
Lab Sample ID: 410-230178-2
Date Collected: 06/30/25 12:40
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorobutanesulfonic acid (PFBS)	**9.5**		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorohexanesulfonic acid (PFHxS)	**7.9**		1.7	0.68	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorooctanesulfonic acid (PFOS)	**16**		1.7	1.1	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.7	0.51	ng/L		07/14/25 06:25	07/15/25 04:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.4	0.84	ng/L		07/14/25 06:25	07/15/25 04:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.4	0.84	ng/L		07/14/25 06:25	07/15/25 04:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.4	0.84	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.4	2.1	ng/L		07/14/25 06:25	07/15/25 04:20	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.4	3.4	ng/L		07/14/25 06:25	07/15/25 04:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		07/14/25 06:25	07/15/25 04:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.42	ng/L		07/14/25 06:25	07/15/25 04:20	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.4	0.84	ng/L		07/14/25 06:25	07/15/25 04:20	1

Client Sample ID: DC600093-MW-4S
Lab Sample ID: 410-230178-2
Date Collected: 06/30/25 12:40
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.4	2.4	ng/L		07/14/25 06:25	07/15/25 04:20	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.4	2.1	ng/L		07/14/25 06:25	07/15/25 04:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.9*		*5 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C5 PFPeA	*88.8*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C5 PFHxA	*88.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C4 PFHpA	*81.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C8 PFOA	*92.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C9 PFNA	*91.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C6 PFDA	*83.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C7 PFUnA	*87.3*		*30 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C2 PFTeDA	*71.5*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C3 PFBS	*102*		*40 - 135*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C3 PFHxS	*97.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C8 PFOS	*94.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C8 FOSA	*85.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
d3-NMeFOSAA	*46.4*		*40 - 170*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
d5-NEtFOSAA	*56.4*		*25 - 135*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C2 4:2 FTS	*91.0*		*40 - 200*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C2 6:2 FTS	*84.6*		*40 - 200*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C2 8:2 FTS	*77.6*		*40 - 300*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C3 HFPO-DA	*78.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
d7-N-MeFOSE-M	*68.0*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
d9-N-EtFOSE-M	*64.8*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
d5-NEtPFOSA	*72.8*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
d3-NMePFOSA	*66.8*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*
13C2 PFDoA	*70.5*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:20*	*1*

Client Sample ID: DC600093-DUP-1
Lab Sample ID: 410-230178-3
Date Collected: 06/30/25 00:00
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.5**		3.1	0.85	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluoropentanoic acid (PFPeA)	**22**		1.5	0.46	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorohexanoic acid (PFHxA)	**19**		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluoroheptanoic acid (PFHpA)	**10**		1.5	0.62	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorooctanoic acid (PFOA)	**30**		1.5	0.69	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorononanoic acid (PFNA)	**0.94**	**J**	1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorobutanesulfonic acid (PFBS)	**8.9**		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1

Client Sample ID: DC600093-DUP-1
Date Collected: 06/30/25 00:00
Date Received: 07/01/25 11:25

Lab Sample ID: 410-230178-3
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**17**		1.5	0.62	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.68**	**J**	1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorooctanesulfonic acid (PFOS)	**15**		1.5	1.0	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.5	0.46	ng/L		07/14/25 06:25	07/15/25 04:34	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.77	ng/L		07/14/25 06:25	07/15/25 04:34	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.77	ng/L		07/14/25 06:25	07/15/25 04:34	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.77	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.7	1.9	ng/L		07/14/25 06:25	07/15/25 04:34	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.7	3.1	ng/L		07/14/25 06:25	07/15/25 04:34	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.1	ng/L		07/14/25 06:25	07/15/25 04:34	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.39	ng/L		07/14/25 06:25	07/15/25 04:34	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.77	ng/L		07/14/25 06:25	07/15/25 04:34	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.7	2.2	ng/L		07/14/25 06:25	07/15/25 04:34	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.7	1.9	ng/L		07/14/25 06:25	07/15/25 04:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.2*		*5 - 130*	*07/14/25 06:25*	*07/15/25 04:34*	*1*
13C5 PFPeA	*89.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:34*	*1*
13C5 PFHxA	*85.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:34*	*1*

Client Sample ID: DC600093-DUP-1
Lab Sample ID: 410-230178-3

Date Collected: 06/30/25 00:00
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	83.8		40 - 130	07/14/25 06:25	07/15/25 04:34	1
13C8 PFOA	87.9		40 - 130	07/14/25 06:25	07/15/25 04:34	1
13C9 PFNA	90.9		40 - 130	07/14/25 06:25	07/15/25 04:34	1
13C6 PFDA	76.7		40 - 130	07/14/25 06:25	07/15/25 04:34	1
13C7 PFUnA	68.8		30 - 130	07/14/25 06:25	07/15/25 04:34	1
13C2 PFTeDA	56.5		10 - 130	07/14/25 06:25	07/15/25 04:34	1
13C3 PFBS	99.5		40 - 135	07/14/25 06:25	07/15/25 04:34	1
13C3 PFHxS	44.0		40 - 130	07/14/25 06:25	07/15/25 04:34	1
13C8 PFOS	87.7		40 - 130	07/14/25 06:25	07/15/25 04:34	1
13C8 FOSA	76.6		40 - 130	07/14/25 06:25	07/15/25 04:34	1
d3-NMeFOSAA	46.5		40 - 170	07/14/25 06:25	07/15/25 04:34	1
d5-NEtFOSAA	51.7		25 - 135	07/14/25 06:25	07/15/25 04:34	1
13C2 4:2 FTS	80.9		40 - 200	07/14/25 06:25	07/15/25 04:34	1
13C2 6:2 FTS	83.4		40 - 200	07/14/25 06:25	07/15/25 04:34	1
13C2 8:2 FTS	69.7		40 - 300	07/14/25 06:25	07/15/25 04:34	1
13C3 HFPO-DA	77.4		40 - 130	07/14/25 06:25	07/15/25 04:34	1
d7-N-MeFOSE-M	50.7		10 - 130	07/14/25 06:25	07/15/25 04:34	1
d9-N-EtFOSE-M	46.0		10 - 130	07/14/25 06:25	07/15/25 04:34	1
d5-NEtPFOSA	69.2		10 - 130	07/14/25 06:25	07/15/25 04:34	1
d3-NMePFOSA	59.0		10 - 130	07/14/25 06:25	07/15/25 04:34	1
13C2 PFDoA	56.9		10 - 130	07/14/25 06:25	07/15/25 04:34	1

Client Sample ID: DC600093-EB-2
Lab Sample ID: 410-230178-4

Date Collected: 06/30/25 12:45
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.9	0.79	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluoropentanoic acid (PFPeA)	ND		1.4	0.43	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorohexanoic acid (PFHxA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluoroheptanoic acid (PFHpA)	ND		1.4	0.58	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorooctanoic acid (PFOA)	ND		1.4	0.65	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorononanoic acid (PFNA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorodecanoic acid (PFDA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.4	0.58	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.4	0.94	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorononanesulfonic acid (PFNS)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.4	0.43	ng/L		07/14/25 06:25	07/15/25 04:47	1

Client Sample ID: DC600093-EB-2
Date Collected: 06/30/25 12:45
Date Received: 07/01/25 11:25

Lab Sample ID: 410-230178-4
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.9	0.72	ng/L		07/14/25 06:25	07/15/25 04:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.9	0.72	ng/L		07/14/25 06:25	07/15/25 04:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.9	0.72	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.2	1.8	ng/L		07/14/25 06:25	07/15/25 04:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.2	2.9	ng/L		07/14/25 06:25	07/15/25 04:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.4	1.0	ng/L		07/14/25 06:25	07/15/25 04:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.4	0.36	ng/L		07/14/25 06:25	07/15/25 04:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.9	0.72	ng/L		07/14/25 06:25	07/15/25 04:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.2	2.0	ng/L		07/14/25 06:25	07/15/25 04:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.2	1.8	ng/L		07/14/25 06:25	07/15/25 04:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*90.7*		*5 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C5 PFPeA	*86.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C5 PFHxA	*80.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C4 PFHpA	*75.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C8 PFOA	*79.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C9 PFNA	*91.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C6 PFDA	*80.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C7 PFUnA	*82.5*		*30 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C2 PFTeDA	*71.8*		*10 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C3 PFBS	*95.1*		*40 - 135*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C3 PFHxS	*88.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*
13C8 PFOS	*96.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 04:47*	*1*

Client Sample ID: DC600093-EB-2
Lab Sample ID: 410-230178-4
Date Collected: 06/30/25 12:45
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	92.0		40 - 130	07/14/25 06:25	07/15/25 04:47	1
d3-NMeFOSAA	67.9		40 - 170	07/14/25 06:25	07/15/25 04:47	1
d5-NEtFOSAA	75.0		25 - 135	07/14/25 06:25	07/15/25 04:47	1
13C2 4:2 FTS	83.2		40 - 200	07/14/25 06:25	07/15/25 04:47	1
13C2 6:2 FTS	79.2		40 - 200	07/14/25 06:25	07/15/25 04:47	1
13C2 8:2 FTS	81.5		40 - 300	07/14/25 06:25	07/15/25 04:47	1
13C3 HFPO-DA	73.0		40 - 130	07/14/25 06:25	07/15/25 04:47	1
d7-N-MeFOSE-M	61.8		10 - 130	07/14/25 06:25	07/15/25 04:47	1
d9-N-EtFOSE-M	59.3		10 - 130	07/14/25 06:25	07/15/25 04:47	1
d5-NEtPFOSA	82.1		10 - 130	07/14/25 06:25	07/15/25 04:47	1
d3-NMePFOSA	74.2		10 - 130	07/14/25 06:25	07/15/25 04:47	1
13C2 PFDoA	71.7		10 - 130	07/14/25 06:25	07/15/25 04:47	1

Client Sample ID: DC600093-FB
Lab Sample ID: 410-230178-5
Date Collected: 06/30/25 12:40
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.88	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.48	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.64	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.72	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.64	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.6	0.48	ng/L		07/14/25 06:25	07/15/25 05:01	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.80	ng/L		07/14/25 06:25	07/15/25 05:01	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.80	ng/L		07/14/25 06:25	07/15/25 05:01	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.80	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1

Client Sample ID: DC600093-FB
Lab Sample ID: 410-230178-5
Date Collected: 06/30/25 12:40
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.0	2.0	ng/L		07/14/25 06:25	07/15/25 05:01	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.0	3.2	ng/L		07/14/25 06:25	07/15/25 05:01	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		07/14/25 06:25	07/15/25 05:01	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.40	ng/L		07/14/25 06:25	07/15/25 05:01	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.80	ng/L		07/14/25 06:25	07/15/25 05:01	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		8.0	2.2	ng/L		07/14/25 06:25	07/15/25 05:01	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.0	2.0	ng/L		07/14/25 06:25	07/15/25 05:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.0*		*5 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C5 PFPeA	*93.8*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C5 PFHxA	*87.8*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C4 PFHpA	*84.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C8 PFOA	*85.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C9 PFNA	*91.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C6 PFDA	*83.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C7 PFUnA	*83.2*		*30 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C2 PFTeDA	*82.5*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C3 PFBS	*96.6*		*40 - 135*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C3 PFHxS	*89.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C8 PFOS	*102*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C8 FOSA	*101*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
d3-NMeFOSAA	*82.2*		*40 - 170*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
d5-NEtFOSAA	*87.2*		*25 - 135*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C2 4:2 FTS	*87.0*		*40 - 200*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C2 6:2 FTS	*81.1*		*40 - 200*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C2 8:2 FTS	*87.2*		*40 - 300*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C3 HFPO-DA	*81.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
d7-N-MeFOSE-M	*77.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
d9-N-EtFOSE-M	*75.6*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
d5-NEtPFOSA	*94.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*

Client Sample ID: DC600093-FB
Lab Sample ID: 410-230178-5
Date Collected: 06/30/25 12:40
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMePFOSA	*80.6*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*
13C2 PFDoA	*75.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:01*	*1*

Client Sample ID: DC600093-EB-1
Lab Sample ID: 410-230178-6
Date Collected: 06/30/25 12:50
Matrix: Water
Date Received: 07/01/25 11:25

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.9	0.80	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.44	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.58	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorooctanoic acid (PFOA)	ND		1.5	0.66	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorononanoic acid (PFNA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorodecanoic acid (PFDA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorododecanoic acid (PFDoA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.5	0.58	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.5	0.95	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorododecanesulfonic acid (PFDoS)	ND	*1 cn	1.5	0.44	ng/L		07/14/25 06:25	07/15/25 05:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.9	0.73	ng/L		07/14/25 06:25	07/15/25 05:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.9	0.73	ng/L		07/14/25 06:25	07/15/25 05:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.9	0.73	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.3	1.8	ng/L		07/14/25 06:25	07/15/25 05:14	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.3	2.9	ng/L		07/14/25 06:25	07/15/25 05:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.5	1.0	ng/L		07/14/25 06:25	07/15/25 05:14	1

Client Sample ID: DC600093-EB-1
Date Collected: 06/30/25 12:50
Date Received: 07/01/25 11:25

Lab Sample ID: 410-230178-6
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.5	0.36	ng/L		07/14/25 06:25	07/15/25 05:14	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		2.9	0.73	ng/L		07/14/25 06:25	07/15/25 05:14	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		7.3	2.0	ng/L		07/14/25 06:25	07/15/25 05:14	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.3	1.8	ng/L		07/14/25 06:25	07/15/25 05:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88.3*		*5 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C5 PFPeA	*83.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C5 PFHxA	*76.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C4 PFHpA	*74.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C8 PFOA	*79.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C9 PFNA	*83.2*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C6 PFDA	*77.5*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C7 PFUnA	*69.9*		*30 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C2 PFTeDA	*64.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C3 PFBS	*95.3*		*40 - 135*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C3 PFHxS	*86.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C8 PFOS	*88.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C8 FOSA	*79.9*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
d3-NMeFOSAA	*64.6*		*40 - 170*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
d5-NEtFOSAA	*65.8*		*25 - 135*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C2 4:2 FTS	*83.4*		*40 - 200*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C2 6:2 FTS	*84.8*		*40 - 200*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C2 8:2 FTS	*79.1*		*40 - 300*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C3 HFPO-DA	*72.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
d7-N-MeFOSE-M	*58.1*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
d9-N-EtFOSE-M	*56.8*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
d5-NEtPFOSA	*70.0*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
d3-NMePFOSA	*62.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*
13C2 PFDoA	*57.0*		*10 - 130*	*07/14/25 06:25*	*07/15/25 05:14*	*1*

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-230178-1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-230178-1	DC600093-MW-1	78.2	78.1	72.6	71.4	74.2	78.0	75.8	73.6
410-230178-2	DC600093-MW-4S	90.9	88.8	88.1	81.3	92.2	91.2	83.7	87.3
410-230178-3	DC600093-DUP-1	90.2	89.7	85.7	83.8	87.9	90.9	76.7	68.8
410-230178-4	DC600093-EB-2	90.7	86.1	80.3	75.0	79.4	91.3	80.2	82.5
410-230178-5	DC600093-FB	94.0	93.8	87.8	84.3	85.5	91.1	83.5	83.2
410-230178-6	DC600093-EB-1	88.3	83.9	76.3	74.3	79.1	83.2	77.5	69.9
LCS 410-670654/3-A	Lab Control Sample	97.1	96.0	92.1	88.1	94.4	100	89.2	86.7
LCSD 410-670654/5-A	Lab Control Sample Dup	95.2	92.5	81.6	80.2	81.3	87.0	72.9	73.2
LLCS 410-670654/4-A	Lab Control Sample	94.9	98.7	94.3	87.1	84.0	92.6	80.0	82.6
MB 410-670654/2-A	Method Blank	100	98.1	90.7	88.8	91.3	95.4	92.0	89.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-230178-1	DC600093-MW-1	74.4	92.6	85.9	88.9	81.2	63.6	64.1	83.0
410-230178-2	DC600093-MW-4S	71.5	102	97.0	94.7	85.2	46.4	56.4	91.0
410-230178-3	DC600093-DUP-1	56.5	99.5	44.0	87.7	76.6	46.5	51.7	80.9
410-230178-4	DC600093-EB-2	71.8	95.1	88.2	96.2	92.0	67.9	75.0	83.2
410-230178-5	DC600093-FB	82.5	96.6	89.5	102	101	82.2	87.2	87.0
410-230178-6	DC600093-EB-1	64.3	95.3	86.4	88.6	79.9	64.6	65.8	83.4
LCS 410-670654/3-A	Lab Control Sample	66.6	101	97.9	104	98.2	87.2	96.7	97.3
LCSD 410-670654/5-A	Lab Control Sample Dup	71.1	88.0	82.1	85.8	96.3	79.6	77.4	92.1
LLCS 410-670654/4-A	Lab Control Sample	81.0	95.0	91.6	101	93.7	84.4	88.7	95.7
MB 410-670654/2-A	Method Blank	75.2	101	97.0	105	94.6	87.3	97.1	91.6

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-230178-1	DC600093-MW-1	77.3	77.0	71.9	64.8	61.6	70.7	63.7	65.3
410-230178-2	DC600093-MW-4S	84.6	77.6	78.6	68.0	64.8	72.8	66.8	70.5
410-230178-3	DC600093-DUP-1	83.4	69.7	77.4	50.7	46.0	69.2	59.0	56.9
410-230178-4	DC600093-EB-2	79.2	81.5	73.0	61.8	59.3	82.1	74.2	71.7
410-230178-5	DC600093-FB	81.1	87.2	81.4	77.3	75.6	94.2	80.6	75.3
410-230178-6	DC600093-EB-1	84.8	79.1	72.6	58.1	56.8	70.0	62.2	57.0
LCS 410-670654/3-A	Lab Control Sample	97.7	98.0	84.5	79.1	77.6	91.9	76.5	73.7
LCSD 410-670654/5-A	Lab Control Sample Dup	83.5	79.1	81.2	77.5	72.9	83.1	71.9	66.3
LLCS 410-670654/4-A	Lab Control Sample	87.9	93.9	86.9	66.6	62.1	87.8	72.9	75.3
MB 410-670654/2-A	Method Blank	90.1	91.6	87.4	65.3	61.1	91.3	77.4	79.3

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-230178-1
Project/Site: NC DSCA PFAS Pilot Study

C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-670654/2-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670654

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		07/14/25 06:25	07/15/25 03:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		07/14/25 06:25	07/15/25 03:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		07/14/25 06:25	07/15/25 03:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-670654/2-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670654

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		07/14/25 06:25	07/15/25 03:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		07/14/25 06:25	07/15/25 03:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		07/14/25 06:25	07/15/25 03:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		07/14/25 06:25	07/15/25 03:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*5 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C5 PFPeA	*98.1*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C5 PFHxA	*90.7*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C4 PFHpA	*88.8*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C8 PFOA	*91.3*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C9 PFNA	*95.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C6 PFDA	*92.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C7 PFUnA	*89.5*		*30 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 PFTeDA	*75.2*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C3 PFBS	*101*		*40 - 135*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C3 PFHxS	*97.0*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C8 PFOS	*105*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C8 FOSA	*94.6*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d3-NMeFOSAA	*87.3*		*40 - 170*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d5-NEtFOSAA	*97.1*		*25 - 135*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 4:2 FTS	*91.6*		*40 - 200*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 6:2 FTS	*90.1*		*40 - 200*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 8:2 FTS	*91.6*		*40 - 300*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C3 HFPO-DA	*87.4*		*40 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d7-N-MeFOSE-M	*65.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d9-N-EtFOSE-M	*61.1*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d5-NEtPFOSA	*91.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
d3-NMePFOSA	*77.4*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*
13C2 PFDoA	*79.3*		*10 - 130*	*07/14/25 06:25*	*07/15/25 03:12*	*1*

Lab Sample ID: LCS 410-670654/3-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	69.5		ng/L		87	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	34.6		ng/L		86	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	35.9		ng/L		90	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	35.6		ng/L		89	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	33.0		ng/L		83	70 - 150
Perfluorononanoic acid (PFNA)	40.0	30.8		ng/L		77	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	36.0		ng/L		90	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-670654/3-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	35.0		ng/L		87	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	38.9		ng/L		97	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	34.0		ng/L		85	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	31.2		ng/L		78	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.5		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	35.2		ng/L		94	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.7		ng/L		92	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	27.6		ng/L		72	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	32.4		ng/L		87	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	27.5		ng/L		71	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	26.7		ng/L		69	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	21.1		ng/L		54	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	68.5		ng/L		91	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	66.6		ng/L		87	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	68.6		ng/L		89	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	33.4		ng/L		83	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	36.7		ng/L		92	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.5		ng/L		84	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	35.0		ng/L		87	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.7		ng/L		84	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	189		ng/L		95	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	186		ng/L		93	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.3		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.4		ng/L		93	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	31.4		ng/L		79	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	35.5		ng/L		89	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	41.6		ng/L		104	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-670654/3-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	28.3		ng/L		76	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	25.0		ng/L		66	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	30.1		ng/L		84	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	65.6		ng/L		82	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	171		ng/L		85	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	155		ng/L		77	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*97.1*		*5 - 130*
13C5 PFPeA	*96.0*		*40 - 130*
13C5 PFHxA	*92.1*		*40 - 130*
13C4 PFHpA	*88.1*		*40 - 130*
13C8 PFOA	*94.4*		*40 - 130*
13C9 PFNA	*100*		*40 - 130*
13C6 PFDA	*89.2*		*40 - 130*
13C7 PFUnA	*86.7*		*30 - 130*
13C2 PFTeDA	*66.6*		*10 - 130*
13C3 PFBS	*101*		*40 - 135*
13C3 PFHxS	*97.9*		*40 - 130*
13C8 PFOS	*104*		*40 - 130*
13C8 FOSA	*98.2*		*40 - 130*
d3-NMeFOSAA	*87.2*		*40 - 170*
d5-NEtFOSAA	*96.7*		*25 - 135*
13C2 4:2 FTS	*97.3*		*40 - 200*
13C2 6:2 FTS	*97.7*		*40 - 200*
13C2 8:2 FTS	*98.0*		*40 - 300*
13C3 HFPO-DA	*84.5*		*40 - 130*
d7-N-MeFOSE-M	*79.1*		*10 - 130*
d9-N-EtFOSE-M	*77.6*		*10 - 130*
d5-NEtPFOSA	*91.9*		*10 - 130*
d3-NMePFOSA	*76.5*		*10 - 130*
13C2 PFDoA	*73.7*		*10 - 130*

Lab Sample ID: LCSD 410-670654/5-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	71.1		ng/L		89	70 - 140	2	30
Perfluoropentanoic acid (PFPeA)			40.0	33.7		ng/L		84	65 - 135	2	30
Perfluorohexanoic acid (PFHxA)			40.0	39.5		ng/L		99	70 - 145	10	30
Perfluoroheptanoic acid (PFHpA)			40.0	36.4		ng/L		91	70 - 150	2	30
Perfluorooctanoic acid (PFOA)			40.0	31.0		ng/L		77	70 - 150	6	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-670654/5-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	29.6		ng/L		74	70 - 150	4	30
Perfluorodecanoic acid (PFDA)	40.0	35.2		ng/L		88	70 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.6		ng/L		94	70 - 145	7	30
Perfluorododecanoic acid (PFDoA)	40.0	40.8		ng/L		102	70 - 140	5	30
Perfluorotridecanoic acid (PFTrDA)	40.0	38.4		ng/L		96	65 - 140	12	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	34.2		ng/L		85	60 - 140	9	30
Perfluorobutanesulfonic acid (PFBS)	35.5	31.6		ng/L		89	60 - 145	4	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	33.0		ng/L		88	65 - 140	7	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.2		ng/L		91	65 - 145	1	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	26.7		ng/L		70	70 - 150	3	30
Perfluorooctanesulfonic acid (PFOS)	37.2	29.2		ng/L		78	55 - 150	11	30
Perfluorononanesulfonic acid (PFNS)	38.5	30.2		ng/L		78	65 - 145	9	30
Perfluorodecanesulfonic acid (PFDS)	38.6	32.5		ng/L		84	60 - 145	20	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	29.8	*1	ng/L		77	50 - 145	34	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	68.1		ng/L		91	70 - 145	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	74.2		ng/L		97	65 - 155	11	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	76.9		ng/L		100	60 - 150	11	30
Perfluorooctanesulfonamide (PFOSA)	40.0	33.9		ng/L		85	70 - 145	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	37.7		ng/L		94	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	33.5		ng/L		84	65 - 145	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.1		ng/L		93	50 - 140	6	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.7		ng/L		92	70 - 145	8	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	198		ng/L		99	70 - 145	4	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	185		ng/L		93	70 - 135	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.9		ng/L		90	70 - 140	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	33.1		ng/L		88	65 - 145	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	32.7		ng/L		82	55 - 140	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	35.8		ng/L		89	60 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-670654/5-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	44.4		ng/L		111	50 - 150	6	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.0		ng/L		80	70 - 155	6	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	30.4		ng/L		80	55 - 160	19	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	29.5		ng/L		83	70 - 140	2	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	69.0		ng/L		86	65 - 130	5	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	193		ng/L		96	70 - 135	12	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	170		ng/L		85	50 - 145	10	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*95.2*		*5 - 130*
13C5 PFPeA	*92.5*		*40 - 130*
13C5 PFHxA	*81.6*		*40 - 130*
13C4 PFHpA	*80.2*		*40 - 130*
13C8 PFOA	*81.3*		*40 - 130*
13C9 PFNA	*87.0*		*40 - 130*
13C6 PFDA	*72.9*		*40 - 130*
13C7 PFUnA	*73.2*		*30 - 130*
13C2 PFTeDA	*71.1*		*10 - 130*
13C3 PFBS	*88.0*		*40 - 135*
13C3 PFHxS	*82.1*		*40 - 130*
13C8 PFOS	*85.8*		*40 - 130*
13C8 FOSA	*96.3*		*40 - 130*
d3-NMeFOSAA	*79.6*		*40 - 170*
d5-NEtFOSAA	*77.4*		*25 - 135*
13C2 4:2 FTS	*92.1*		*40 - 200*
13C2 6:2 FTS	*83.5*		*40 - 200*
13C2 8:2 FTS	*79.1*		*40 - 300*
13C3 HFPO-DA	*81.2*		*40 - 130*
d7-N-MeFOSE-M	*77.5*		*10 - 130*
d9-N-EtFOSE-M	*72.9*		*10 - 130*
d5-NEtPFOSA	*83.1*		*10 - 130*
d3-NMePFOSA	*71.9*		*10 - 130*
13C2 PFDoA	*66.3*		*10 - 130*

Lab Sample ID: LLCS 410-670654/4-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.17		ng/L		90	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	3.71		ng/L		93	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.65		ng/L		91	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-670654/4-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.88		ng/L		97	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.62		ng/L		91	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.67		ng/L		92	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.97		ng/L		99	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.90		ng/L		98	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.33		ng/L		108	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.85		ng/L		96	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.42		ng/L		85	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.45		ng/L		97	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	4.08		ng/L		108	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.10		ng/L		85	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.05		ng/L		80	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.48		ng/L		94	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.43		ng/L		89	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.15		ng/L		82	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.96		ng/L		76	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.47		ng/L		100	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	8.02		ng/L		105	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.01		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.12		ng/L		103	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.40		ng/L		110	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.04		ng/L		101	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.12		ng/L		103	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	4.02		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.5		ng/L		108	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	23.2		ng/L		116	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.71		ng/L		90	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.54		ng/L		93	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.46		ng/L		86	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-670654/4-A
Matrix: Water
Analysis Batch: 670538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670654

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.35		ng/L		84	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.89		ng/L		97	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	3.03		ng/L		81	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.99		ng/L		79	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	2.97		ng/L		83	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.36		ng/L		79	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	18.8		ng/L		94	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	15.7		ng/L		79	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*94.9*		*5 - 130*
13C5 PFPeA	*98.7*		*40 - 130*
13C5 PFHxA	*94.3*		*40 - 130*
13C4 PFHpA	*87.1*		*40 - 130*
13C8 PFOA	*84.0*		*40 - 130*
13C9 PFNA	*92.6*		*40 - 130*
13C6 PFDA	*80.0*		*40 - 130*
13C7 PFUnA	*82.6*		*30 - 130*
13C2 PFTeDA	*81.0*		*10 - 130*
13C3 PFBS	*95.0*		*40 - 135*
13C3 PFHxS	*91.6*		*40 - 130*
13C8 PFOS	*101*		*40 - 130*
13C8 FOSA	*93.7*		*40 - 130*
d3-NMeFOSAA	*84.4*		*40 - 170*
d5-NEtFOSAA	*88.7*		*25 - 135*
13C2 4:2 FTS	*95.7*		*40 - 200*
13C2 6:2 FTS	*87.9*		*40 - 200*
13C2 8:2 FTS	*93.9*		*40 - 300*
13C3 HFPO-DA	*86.9*		*40 - 130*
d7-N-MeFOSE-M	*66.6*		*10 - 130*
d9-N-EtFOSE-M	*62.1*		*10 - 130*
d5-NEtPFOSA	*87.8*		*10 - 130*
d3-NMePFOSA	*72.9*		*10 - 130*
13C2 PFDoA	*75.3*		*10 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-230178-1

LCMS

Analysis Batch: 670538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230178-1	DC600093-MW-1	Total/NA	Water	1633A	670654
410-230178-2	DC600093-MW-4S	Total/NA	Water	1633A	670654
410-230178-3	DC600093-DUP-1	Total/NA	Water	1633A	670654
410-230178-4	DC600093-EB-2	Total/NA	Water	1633A	670654
410-230178-5	DC600093-FB	Total/NA	Water	1633A	670654
410-230178-6	DC600093-EB-1	Total/NA	Water	1633A	670654
MB 410-670654/2-A	Method Blank	Total/NA	Water	1633A	670654
LCS 410-670654/3-A	Lab Control Sample	Total/NA	Water	1633A	670654
LCSD 410-670654/5-A	Lab Control Sample Dup	Total/NA	Water	1633A	670654
LLCS 410-670654/4-A	Lab Control Sample	Total/NA	Water	1633A	670654

Prep Batch: 670654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-230178-1	DC600093-MW-1	Total/NA	Water	1633A	
410-230178-2	DC600093-MW-4S	Total/NA	Water	1633A	
410-230178-3	DC600093-DUP-1	Total/NA	Water	1633A	
410-230178-4	DC600093-EB-2	Total/NA	Water	1633A	
410-230178-5	DC600093-FB	Total/NA	Water	1633A	
410-230178-6	DC600093-EB-1	Total/NA	Water	1633A	
MB 410-670654/2-A	Method Blank	Total/NA	Water	1633A	
LCS 410-670654/3-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-670654/5-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-670654/4-A	Lab Control Sample	Total/NA	Water	1633A	

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-230178-1
Project/Site: NC DSCA PFAS Pilot Study

Client Sample ID: DC600093-MW-1
Lab Sample ID: 410-230178-1
Date Collected: 06/30/25 09:45
Matrix: Water
Date Received: 07/01/25 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 04:06

Client Sample ID: DC600093-MW-4S
Lab Sample ID: 410-230178-2
Date Collected: 06/30/25 12:40
Matrix: Water
Date Received: 07/01/25 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 04:20

Client Sample ID: DC600093-DUP-1
Lab Sample ID: 410-230178-3
Date Collected: 06/30/25 00:00
Matrix: Water
Date Received: 07/01/25 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 04:34

Client Sample ID: DC600093-EB-2
Lab Sample ID: 410-230178-4
Date Collected: 06/30/25 12:45
Matrix: Water
Date Received: 07/01/25 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 04:47

Client Sample ID: DC600093-FB
Lab Sample ID: 410-230178-5
Date Collected: 06/30/25 12:40
Matrix: Water
Date Received: 07/01/25 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 05:01

Client Sample ID: DC600093-EB-1
Lab Sample ID: 410-230178-6
Date Collected: 06/30/25 12:50
Matrix: Water
Date Received: 07/01/25 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			670654	M4QQ	ELLE	07/14/25 06:25
Total/NA	Analysis	1633A		1	670538	P7EB	ELLE	07/15/25 05:14

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230178-1
Project/Site: NC DSCA PFAS Pilot Study

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-230178-1
Project/Site: NC DSCA PFAS Pilot Study

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-230178-1

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-230178-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-230178-1	DC600093-MW-1	Water	06/30/25 09:45	07/01/25 11:25
410-230178-2	DC600093-MW-4S	Water	06/30/25 12:40	07/01/25 11:25
410-230178-3	DC600093-DUP-1	Water	06/30/25 00:00	07/01/25 11:25
410-230178-4	DC600093-EB-2	Water	06/30/25 12:45	07/01/25 11:25
410-230178-5	DC600093-FB	Water	06/30/25 12:40	07/01/25 11:25
410-230178-6	DC600093-EB-1	Water	06/30/25 12:50	07/01/25 11:25

ironme

Chain of Custody Record

eurofins | Environment Testing

Client Contact: Sam Martin	Sampler: De Mars	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159590-44132.1
Company: Hart & Hickman, PC	Phone: (951) 595-2256	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Address: 2923 S Tryon Street Suite 100	PWSID:	Analysis Requested		Job #:
City: Charlotte	Due Date Requested:			Preservation Codes: N - None
State, Zip: NC, 28203	TAT Requested (days): Standard H+H (10-day)			
Phone: 704-887-4608(Tel)	Compliance Project: Δ Yes Δ No			
Email: smartin@harthickman.com	PO #: DSO PFAS			
Project Name: Wash Zone Coin Laundry (DC600093)	WO #:			Other:
Site:	Project #: 41025876			
	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - List of 40 based on EPA method	1633_Final, 1633_TOPS (Post)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC600093 - MW-1	6/30/25	0945	G	Water	N	N	✓	✓	3	* Please report J Flags
DC600093 - MW-45		1240		Water			✓	✓	3	& report non-detects
DC600093 - DUP-1		—		Water			✓		2	as < MDLs
DC600093 - EB-2		1245		Water			✓		2	* EDD Formats; H+H
DC600093 - FB		1240		Water			✓		2	DSCA, NCDEQ
DC600093 - EB-1		1250		Water			✓		2	* ALL TOP analyses
				Water						hold until 1633 results
				Water						
				Water						
				Water						

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: De Mars	Date/Time: 6/30/25 15:00	Company: H+H	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by: 7/1/25 1125

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: R: 2.7-5.5 C: 2.8-5.6

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-230178-1

Login Number: 230178
List Number: 1
Creator: Fuehrer, Stephanie

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

WHITE STAR LAUNDRY

DC320038

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 7/15/2025 9:43:33 AM

JOB DESCRIPTION

White Star Laundry (DC320038)

JOB NUMBER

410-228567-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/15/2025 9:43:33 AM

Authorized for release by
Kelly Gallagher, Project Manager
kelly.gallagher@et.eurofinsus.com
(717)205-7820

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

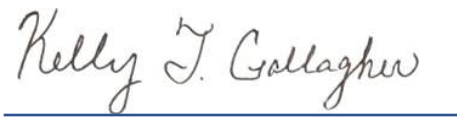


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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Qualifiers

LCMS

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-228567-1 — Eurofins Lancaster Laboratories Environment

Job Narrative
410-228567-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/20/2025 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C.

PFAS
Method 1633A: The recovery for the target analytes: 3-Perfluoropentylpropanoic acid (5:3 FTCA) in the laboratory control spike samples associated with the following samples: DC320038-MW-4 (410-228567-2), DC320038-DUP (410-228567-3), DC320038-FB (410-228567-4) and DC320038-EB (410-228567-5) is outside the QC acceptance limits. Since this target was outside specification by less than 10%, the laboratory control spike is within the QC acceptance limit, and the analyte is not detected in samples, the data is reported.

Method 1633A: The recovery for the target analytes: 3-Perfluoropentylpropanoic acid (5:3 FTCA) in the laboratory control spike sample associated with the following sample: DC320038-MW-8 (410-228567-1) is outside the QC acceptance limits. Since this target was outside specification by less than 10%, the laboratory control spike is within the QC acceptance limit, and the analyte is not detected in samples, the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: White Star Laundry (DC320038)

Job ID: 410-228567-1

Client Sample ID: DC320038-MW-8 — Lab Sample ID: 410-228567-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	17		3.4	0.95	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	26		1.7	0.52	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	29		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	4.3		1.7	0.69	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	7.8		1.7	0.77	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	1.1	J	1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.5		1.7	0.43	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.5	J	1.7	0.69	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	12		1.7	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC320038-MW-4 — Lab Sample ID: 410-228567-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	140		3.3	0.92	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	100		1.7	0.50	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	93		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	61		1.7	0.67	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	150		1.7	0.75	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	21		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorodecanoic acid (PFDA)	2.9		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	26		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.2		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.7		1.7	0.67	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.1		1.7	0.42	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	87		1.7	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC320038-DUP — Lab Sample ID: 410-228567-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	140		3.6	0.99	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	96		1.8	0.54	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	93		1.8	0.45	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	55		1.8	0.72	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	140		1.8	0.81	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	22		1.8	0.45	ng/L	1		1633A	Total/NA
Perfluorodecanoic acid (PFDA)	2.3		1.8	0.45	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	26		1.8	0.45	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.6		1.8	0.45	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.5		1.8	0.72	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.8		1.8	0.45	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	83		1.8	1.2	ng/L	1		1633A	Total/NA

Client Sample ID: DC320038-FB — Lab Sample ID: 410-228567-4

No Detections.

Client Sample ID: DC320038-EB — Lab Sample ID: 410-228567-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Client Sample ID: DC320038-MW-8
Lab Sample ID: 410-228567-1
Date Collected: 06/19/25 09:10
Matrix: Water
Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**17**		3.4	0.95	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluoropentanoic acid (PFPeA)	**26**		1.7	0.52	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorohexanoic acid (PFHxA)	**29**		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluoroheptanoic acid (PFHpA)	**4.3**		1.7	0.69	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorooctanoic acid (PFOA)	**7.8**		1.7	0.77	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorononanoic acid (PFNA)	**1.1**	**J**	1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorobutanesulfonic acid (PFBS)	**6.5**		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorohexanesulfonic acid (PFHxS)	**1.5**	**J**	1.7	0.69	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorooctanesulfonic acid (PFOS)	**12**		1.7	1.1	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.52	ng/L		06/27/25 07:52	06/30/25 23:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.4	0.86	ng/L		06/27/25 07:52	06/30/25 23:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.4	0.86	ng/L		06/27/25 07:52	06/30/25 23:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.4	0.86	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.6	2.2	ng/L		06/27/25 07:52	06/30/25 23:27	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.6	3.4	ng/L		06/27/25 07:52	06/30/25 23:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		06/27/25 07:52	06/30/25 23:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1

Client Sample ID: DC320038-MW-8

Lab Sample ID: 410-228567-1

Date Collected: 06/19/25 09:10

Matrix: Water

Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.43	ng/L		06/27/25 07:52	06/30/25 23:27	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.4	0.86	ng/L		06/27/25 07:52	06/30/25 23:27	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	8.6	2.4	ng/L		06/27/25 07:52	06/30/25 23:27	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.6	2.2	ng/L		06/27/25 07:52	06/30/25 23:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.7*		*5 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C5 PFPeA	*100*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C5 PFHxA	*97.0*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C4 PFHpA	*90.6*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C8 PFOA	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C9 PFNA	*97.3*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C6 PFDA	*81.4*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C7 PFUnA	*71.7*		*30 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C2 PFTeDA	*54.8*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C3 PFBS	*96.0*		*40 - 135*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C3 PFHxS	*97.9*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C8 PFOS	*88.0*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C8 FOSA	*73.9*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
d3-NMeFOSAA	*85.1*		*40 - 170*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
d5-NEtFOSAA	*82.0*		*25 - 135*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C2 4:2 FTS	*94.9*		*40 - 200*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C2 6:2 FTS	*96.3*		*40 - 200*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C2 8:2 FTS	*78.7*		*40 - 300*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C3 HFPO-DA	*87.5*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
d7-N-MeFOSE-M	*54.3*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
d9-N-EtFOSE-M	*48.2*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
d5-NEtPFOSA	*65.4*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
d3-NMePFOSA	*63.8*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*
13C2 PFDoA	*60.8*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:27*	*1*

Client Sample ID: DC320038-MW-4

Lab Sample ID: 410-228567-2

Date Collected: 06/19/25 09:57

Matrix: Water

Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**140**		3.3	0.92	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluoropentanoic acid (PFPeA)	**100**		1.7	0.50	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorohexanoic acid (PFHxA)	**93**		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluoroheptanoic acid (PFHpA)	**61**		1.7	0.67	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorooctanoic acid (PFOA)	**150**		1.7	0.75	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorononanoic acid (PFNA)	**21**		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorodecanoic acid (PFDA)	**2.9**		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1

Client: Hart & Hickman, PC
Project/Site: White Star Laundry (DC320038)

Job ID: 410-228567-1

Client Sample ID: DC320038-MW-4
Date Collected: 06/19/25 09:57
Date Received: 06/20/25 09:40

Lab Sample ID: 410-228567-2
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorobutanesulfonic acid (PFBS)	**26**		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluoropentanesulfonic acid (PFPeS)	**3.2**		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorohexanesulfonic acid (PFHxS)	**9.7**		1.7	0.67	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluoroheptanesulfonic acid (PFHpS)	**2.1**		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorooctanesulfonic acid (PFOS)	**87**		1.7	1.1	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.50	ng/L		06/27/25 07:52	06/30/25 23:40	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.3	0.83	ng/L		06/27/25 07:52	06/30/25 23:40	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.3	0.83	ng/L		06/27/25 07:52	06/30/25 23:40	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.3	0.83	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.3	2.1	ng/L		06/27/25 07:52	06/30/25 23:40	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.3	3.3	ng/L		06/27/25 07:52	06/30/25 23:40	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		06/27/25 07:52	06/30/25 23:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.42	ng/L		06/27/25 07:52	06/30/25 23:40	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.3	0.83	ng/L		06/27/25 07:52	06/30/25 23:40	1

Client Sample ID: DC320038-MW-4

Lab Sample ID: 410-228567-2
Date Collected: 06/19/25 09:57
Matrix: Water
Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	8.3	2.3	ng/L		06/27/25 07:52	06/30/25 23:40	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.3	2.1	ng/L		06/27/25 07:52	06/30/25 23:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*104*		*5 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C5 PFPeA	*98.2*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C5 PFHxA	*105*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C4 PFHpA	*104*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C8 PFOA	*99.2*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C9 PFNA	*99.6*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C6 PFDA	*88.3*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C7 PFUnA	*70.9*		*30 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C2 PFTeDA	*53.7*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C3 PFBS	*104*		*40 - 135*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C3 PFHxS	*111*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C8 PFOS	*85.4*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C8 FOSA	*64.5*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
d3-NMeFOSAA	*71.8*		*40 - 170*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
d5-NEtFOSAA	*62.8*		*25 - 135*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C2 4:2 FTS	*88.1*		*40 - 200*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C2 6:2 FTS	*105*		*40 - 200*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C2 8:2 FTS	*78.2*		*40 - 300*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C3 HFPO-DA	*104*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
d7-N-MeFOSE-M	*58.8*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
d9-N-EtFOSE-M	*55.7*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
d5-NEtPFOSA	*57.9*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
d3-NMePFOSA	*57.3*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*
13C2 PFDoA	*59.4*		*10 - 130*	*06/27/25 07:52*	*06/30/25 23:40*	*1*

Client Sample ID: DC320038-DUP

Lab Sample ID: 410-228567-3
Date Collected: 06/19/25 00:00
Matrix: Water
Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**140**		3.6	0.99	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluoropentanoic acid (PFPeA)	**96**		1.8	0.54	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorohexanoic acid (PFHxA)	**93**		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluoroheptanoic acid (PFHpA)	**55**		1.8	0.72	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorooctanoic acid (PFOA)	**140**		1.8	0.81	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorononanoic acid (PFNA)	**22**		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorodecanoic acid (PFDA)	**2.3**		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorobutanesulfonic acid (PFBS)	**26**		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluoropentanesulfonic acid (PFPeS)	**3.6**		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1

Client: Hart & Hickman, PC
Project/Site: White Star Laundry (DC320038)

Job ID: 410-228567-1

Client Sample ID: DC320038-DUP
Date Collected: 06/19/25 00:00
Date Received: 06/20/25 09:40

Lab Sample ID: 410-228567-3
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**9.5**		1.8	0.72	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluoroheptanesulfonic acid (PFHpS)	**1.8**		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorooctanesulfonic acid (PFOS)	**83**		1.8	1.2	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorononanesulfonic acid (PFNS)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	0.54	ng/L		06/27/25 07:52	06/30/25 23:54	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.6	0.90	ng/L		06/27/25 07:52	06/30/25 23:54	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.6	0.90	ng/L		06/27/25 07:52	06/30/25 23:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.6	0.90	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		9.0	2.3	ng/L		06/27/25 07:52	06/30/25 23:54	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		9.0	3.6	ng/L		06/27/25 07:52	06/30/25 23:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.8	1.3	ng/L		06/27/25 07:52	06/30/25 23:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.8	0.45	ng/L		06/27/25 07:52	06/30/25 23:54	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.6	0.90	ng/L		06/27/25 07:52	06/30/25 23:54	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	9.0	2.5	ng/L		06/27/25 07:52	06/30/25 23:54	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		9.0	2.3	ng/L		06/27/25 07:52	06/30/25 23:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*5 - 130*	*06/27/25 07:52*	*06/30/25 23:54*	*1*
13C5 PFPeA	*99.3*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:54*	*1*
13C5 PFHxA	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 23:54*	*1*

Client Sample ID: DC320038-DUP

Lab Sample ID: 410-228567-3

Date Collected: 06/19/25 00:00
Matrix: Water
Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	102		40 - 130	06/27/25 07:52	06/30/25 23:54	1
13C8 PFOA	97.1		40 - 130	06/27/25 07:52	06/30/25 23:54	1
13C9 PFNA	99.0		40 - 130	06/27/25 07:52	06/30/25 23:54	1
13C6 PFDA	96.6		40 - 130	06/27/25 07:52	06/30/25 23:54	1
13C7 PFUnA	86.5		30 - 130	06/27/25 07:52	06/30/25 23:54	1
13C2 PFTeDA	54.7		10 - 130	06/27/25 07:52	06/30/25 23:54	1
13C3 PFBS	91.6		40 - 135	06/27/25 07:52	06/30/25 23:54	1
13C3 PFHxS	93.1		40 - 130	06/27/25 07:52	06/30/25 23:54	1
13C8 PFOS	92.2		40 - 130	06/27/25 07:52	06/30/25 23:54	1
13C8 FOSA	80.1		40 - 130	06/27/25 07:52	06/30/25 23:54	1
d3-NMeFOSAA	93.8		40 - 170	06/27/25 07:52	06/30/25 23:54	1
d5-NEtFOSAA	88.9		25 - 135	06/27/25 07:52	06/30/25 23:54	1
13C2 4:2 FTS	88.5		40 - 200	06/27/25 07:52	06/30/25 23:54	1
13C2 6:2 FTS	94.1		40 - 200	06/27/25 07:52	06/30/25 23:54	1
13C2 8:2 FTS	88.1		40 - 300	06/27/25 07:52	06/30/25 23:54	1
13C3 HFPO-DA	91.5		40 - 130	06/27/25 07:52	06/30/25 23:54	1
d7-N-MeFOSE-M	56.0		10 - 130	06/27/25 07:52	06/30/25 23:54	1
d9-N-EtFOSE-M	44.5		10 - 130	06/27/25 07:52	06/30/25 23:54	1
d5-NEtPFOSA	69.5		10 - 130	06/27/25 07:52	06/30/25 23:54	1
d3-NMePFOSA	72.7		10 - 130	06/27/25 07:52	06/30/25 23:54	1
13C2 PFDoA	76.5		10 - 130	06/27/25 07:52	06/30/25 23:54	1

Client Sample ID: DC320038-FB

Lab Sample ID: 410-228567-4

Date Collected: 06/19/25 10:25
Matrix: Water
Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.89	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.49	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.65	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.73	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.1	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.49	ng/L		06/27/25 07:52	07/01/25 00:08	1

Client: Hart & Hickman, PC
Project/Site: White Star Laundry (DC320038)

Job ID: 410-228567-1

Client Sample ID: DC320038-FB
Date Collected: 06/19/25 10:25
Date Received: 06/20/25 09:40

Lab Sample ID: 410-228567-4
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.81	ng/L		06/27/25 07:52	07/01/25 00:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.81	ng/L		06/27/25 07:52	07/01/25 00:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.81	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.1	2.0	ng/L		06/27/25 07:52	07/01/25 00:08	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.1	3.2	ng/L		06/27/25 07:52	07/01/25 00:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		06/27/25 07:52	07/01/25 00:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.41	ng/L		06/27/25 07:52	07/01/25 00:08	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.81	ng/L		06/27/25 07:52	07/01/25 00:08	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	8.1	2.3	ng/L		06/27/25 07:52	07/01/25 00:08	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.1	2.0	ng/L		06/27/25 07:52	07/01/25 00:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.6*		*5 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C5 PFPeA	*92.8*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C5 PFHxA	*103*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C4 PFHpA	*98.2*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C8 PFOA	*95.6*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C9 PFNA	*101*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C6 PFDA	*100*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C7 PFUnA	*90.1*		*30 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C2 PFTeDA	*82.7*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C3 PFBS	*93.2*		*40 - 135*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C3 PFHxS	*99.6*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C8 PFOS	*100*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*

Client Sample ID: DC320038-FB — **Lab Sample ID: 410-228567-4**
Date Collected: 06/19/25 10:25 — **Matrix: Water**
Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*85.5*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
d3-NMeFOSAA	*119*		*40 - 170*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
d5-NEtFOSAA	*101*		*25 - 135*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C2 4:2 FTS	*97.4*		*40 - 200*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C2 6:2 FTS	*103*		*40 - 200*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C2 8:2 FTS	*92.9*		*40 - 300*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C3 HFPO-DA	*90.4*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
d7-N-MeFOSE-M	*81.1*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
d9-N-EtFOSE-M	*72.1*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
d5-NEtPFOSA	*76.8*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
d3-NMePFOSA	*77.6*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*
13C2 PFDoA	*90.1*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:08*	*1*

Client Sample ID: DC320038-EB — **Lab Sample ID: 410-228567-5**
Date Collected: 06/19/25 10:20 — **Matrix: Water**
Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1	0.85	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.47	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.62	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.70	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.62	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		06/27/25 07:52	07/01/25 00:21	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.78	ng/L		06/27/25 07:52	07/01/25 00:21	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.78	ng/L		06/27/25 07:52	07/01/25 00:21	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.78	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Client Sample ID: DC320038-EB
Lab Sample ID: 410-228567-5
Date Collected: 06/19/25 10:20
Matrix: Water
Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	1.9	ng/L		06/27/25 07:52	07/01/25 00:21	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	3.1	ng/L		06/27/25 07:52	07/01/25 00:21	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		06/27/25 07:52	07/01/25 00:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		06/27/25 07:52	07/01/25 00:21	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.78	ng/L		06/27/25 07:52	07/01/25 00:21	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*- cn	7.8	2.2	ng/L		06/27/25 07:52	07/01/25 00:21	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	1.9	ng/L		06/27/25 07:52	07/01/25 00:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*103*		*5 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C5 PFPeA	*103*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C5 PFHxA	*111*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C4 PFHpA	*103*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C8 PFOA	*95.6*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C9 PFNA	*101*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C6 PFDA	*107*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C7 PFUnA	*106*		*30 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C2 PFTeDA	*86.3*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C3 PFBS	*95.7*		*40 - 135*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C3 PFHxS	*106*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C8 PFOS	*109*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C8 FOSA	*95.1*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
d3-NMeFOSAA	*120*		*40 - 170*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
d5-NEtFOSAA	*106*		*25 - 135*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C2 4:2 FTS	*102*		*40 - 200*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C2 6:2 FTS	*107*		*40 - 200*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C2 8:2 FTS	*99.3*		*40 - 300*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
13C3 HFPO-DA	*97.9*		*40 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
d7-N-MeFOSE-M	*86.6*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
d9-N-EtFOSE-M	*74.2*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*
d5-NEtPFOSA	*86.1*		*10 - 130*	*06/27/25 07:52*	*07/01/25 00:21*	*1*

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Client Sample ID: DC320038-EB
Lab Sample ID: 410-228567-5
Date Collected: 06/19/25 10:20
Matrix: Water
Date Received: 06/20/25 09:40

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMePFOSA	84.9		10 - 130	06/27/25 07:52	07/01/25 00:21	1
13C2 PFDoA	100		10 - 130	06/27/25 07:52	07/01/25 00:21	1

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)
410-228567-1	DC320038-MW-8	99.7	100	97.0	90.6	102	97.3	81.4	71.7
410-228567-2	DC320038-MW-4	104	98.2	105	104	99.2	99.6	88.3	70.9
410-228567-3	DC320038-DUP	101	99.3	102	102	97.1	99.0	96.6	86.5
410-228567-4	DC320038-FB	96.6	92.8	103	98.2	95.6	101	100	90.1
410-228567-5	DC320038-EB	103	103	111	103	95.6	101	107	106
LCS 410-663812/10-A	Lab Control Sample	93.5	104	95.0	93.9	91.4	94.4	87.3	85.9
LCSD 410-663812/11-A	Lab Control Sample Dup	94.6	96.9	98.4	93.4	92.0	88.6	90.9	92.2
LLCS 410-663812/12-A	Lab Control Sample	111	116	112	108	98.3	103	96.7	88.5
MB 410-663812/9-A	Method Blank	91.2	93.4	98.3	99.6	102	98.8	101	110

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(40-135)	(40-130)	(40-130)	(40-130)	(40-170)	(25-135)	(40-200)
410-228567-1	DC320038-MW-8	54.8	96.0	97.9	88.0	73.9	85.1	82.0	94.9
410-228567-2	DC320038-MW-4	53.7	104	111	85.4	64.5	71.8	62.8	88.1
410-228567-3	DC320038-DUP	54.7	91.6	93.1	92.2	80.1	93.8	88.9	88.5
410-228567-4	DC320038-FB	82.7	93.2	99.6	100	85.5	119	101	97.4
410-228567-5	DC320038-EB	86.3	95.7	106	109	95.1	120	106	102
LCS 410-663812/10-A	Lab Control Sample	77.5	96.7	95.5	89.7	82.1	102	86.1	99.5
LCSD 410-663812/11-A	Lab Control Sample Dup	75.3	81.4	91.7	92.5	84.6	111	93.6	93.6
LLCS 410-663812/12-A	Lab Control Sample	75.9	102	104	101	95.1	115	105	114
MB 410-663812/9-A	Method Blank	97.7	86.0	97.6	105	95.2	119	132	89.1

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoA
Lab Sample ID	Client Sample ID	(40-200)	(40-300)	(40-130)	(10-130)	(10-130)	(10-130)	(10-130)	(10-130)
410-228567-1	DC320038-MW-8	96.3	78.7	87.5	54.3	48.2	65.4	63.8	60.8
410-228567-2	DC320038-MW-4	105	78.2	104	58.8	55.7	57.9	57.3	59.4
410-228567-3	DC320038-DUP	94.1	88.1	91.5	56.0	44.5	69.5	72.7	76.5
410-228567-4	DC320038-FB	103	92.9	90.4	81.1	72.1	76.8	77.6	90.1
410-228567-5	DC320038-EB	107	99.3	97.9	86.6	74.2	86.1	84.9	100
LCS 410-663812/10-A	Lab Control Sample	101	91.9	97.0	92.9	81.3	72.2	75.9	86.9
LCSD 410-663812/11-A	Lab Control Sample Dup	92.2	85.7	96.3	81.2	73.9	77.7	75.9	92.0
LLCS 410-663812/12-A	Lab Control Sample	123	105	107	80.9	75.6	81.8	84.7	91.0
MB 410-663812/9-A	Method Blank	95.7	99.8	96.7	118	95.1	96.8	91.6	115

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-663812/9-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 663812

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		06/27/25 07:52	06/30/25 20:57	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		06/27/25 07:52	06/30/25 20:57	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		06/27/25 07:52	06/30/25 20:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-663812/9-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 663812

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		06/27/25 07:52	06/30/25 20:57	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		06/27/25 07:52	06/30/25 20:57	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		06/27/25 07:52	06/30/25 20:57	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		06/27/25 07:52	06/30/25 20:57	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91.2*		*5 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C5 PFPeA	*93.4*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C5 PFHxA	*98.3*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C4 PFHpA	*99.6*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C8 PFOA	*102*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C9 PFNA	*98.8*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C6 PFDA	*101*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C7 PFUnA	*110*		*30 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 PFTeDA	*97.7*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C3 PFBS	*86.0*		*40 - 135*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C3 PFHxS	*97.6*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C8 PFOS	*105*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C8 FOSA	*95.2*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d3-NMeFOSAA	*119*		*40 - 170*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d5-NEtFOSAA	*132*		*25 - 135*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 4:2 FTS	*89.1*		*40 - 200*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 6:2 FTS	*95.7*		*40 - 200*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 8:2 FTS	*99.8*		*40 - 300*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C3 HFPO-DA	*96.7*		*40 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d7-N-MeFOSE-M	*118*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d9-N-EtFOSE-M	*95.1*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d5-NEtPFOSA	*96.8*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
d3-NMePFOSA	*91.6*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*
13C2 PFDoA	*115*		*10 - 130*	*06/27/25 07:52*	*06/30/25 20:57*	*1*

Lab Sample ID: LCS 410-663812/10-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	65.0		ng/L		81	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	32.6		ng/L		82	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	31.8		ng/L		80	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	31.2		ng/L		78	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	29.7		ng/L		74	70 - 150
Perfluorononanoic acid (PFNA)	40.0	32.4		ng/L		81	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	33.7		ng/L		84	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-663812/10-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	38.5		ng/L		96	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	35.8		ng/L		90	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	33.7		ng/L		84	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	30.8		ng/L		77	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	30.4		ng/L		86	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	32.7		ng/L		87	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	28.1		ng/L		77	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.1		ng/L		87	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	31.2		ng/L		84	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	31.6		ng/L		82	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	32.5		ng/L		84	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	26.5		ng/L		68	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	70.7		ng/L		94	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	69.2		ng/L		91	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	68.6		ng/L		89	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	36.4		ng/L		91	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	34.1		ng/L		85	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	35.5		ng/L		89	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	32.8		ng/L		82	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	33.8		ng/L		85	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	149		ng/L		74	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	158		ng/L		79	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.4		ng/L		91	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	31.3		ng/L		83	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	34.2		ng/L		85	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	32.2		ng/L		80	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	35.0		ng/L		87	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-663812/10-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.3		ng/L		81	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	32.4		ng/L		86	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	28.2		ng/L		79	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	64.6		ng/L		81	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	147		ng/L		73	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	150		ng/L		75	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*93.5*		*5 - 130*
13C5 PFPeA	*104*		*40 - 130*
13C5 PFHxA	*95.0*		*40 - 130*
13C4 PFHpA	*93.9*		*40 - 130*
13C8 PFOA	*91.4*		*40 - 130*
13C9 PFNA	*94.4*		*40 - 130*
13C6 PFDA	*87.3*		*40 - 130*
13C7 PFUnA	*85.9*		*30 - 130*
13C2 PFTeDA	*77.5*		*10 - 130*
13C3 PFBS	*96.7*		*40 - 135*
13C3 PFHxS	*95.5*		*40 - 130*
13C8 PFOS	*89.7*		*40 - 130*
13C8 FOSA	*82.1*		*40 - 130*
d3-NMeFOSAA	*102*		*40 - 170*
d5-NEtFOSAA	*86.1*		*25 - 135*
13C2 4:2 FTS	*99.5*		*40 - 200*
13C2 6:2 FTS	*101*		*40 - 200*
13C2 8:2 FTS	*91.9*		*40 - 300*
13C3 HFPO-DA	*97.0*		*40 - 130*
d7-N-MeFOSE-M	*92.9*		*10 - 130*
d9-N-EtFOSE-M	*81.3*		*10 - 130*
d5-NEtPFOSA	*72.2*		*10 - 130*
d3-NMePFOSA	*75.9*		*10 - 130*
13C2 PFDoA	*86.9*		*10 - 130*

Lab Sample ID: LCSD 410-663812/11-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 663812

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	66.8		ng/L		84	70 - 140	3	30
Perfluoropentanoic acid (PFPeA)			40.0	34.4		ng/L		86	65 - 135	5	30
Perfluorohexanoic acid (PFHxA)			40.0	32.2		ng/L		81	70 - 145	1	30
Perfluoroheptanoic acid (PFHpA)			40.0	32.7		ng/L		82	70 - 150	5	30
Perfluorooctanoic acid (PFOA)			40.0	31.9		ng/L		80	70 - 150	7	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-663812/11-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 663812

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)	40.0	33.0		ng/L		82	70 - 150	2	30
Perfluorodecanoic acid (PFDA)	40.0	33.4		ng/L		83	70 - 140	1	30
Perfluoroundecanoic acid (PFUnA)	40.0	32.4		ng/L		81	70 - 145	17	30
Perfluorododecanoic acid (PFDoA)	40.0	36.5		ng/L		91	70 - 140	2	30
Perfluorotridecanoic acid (PFTrDA)	40.0	35.0		ng/L		87	65 - 140	4	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	31.8		ng/L		79	60 - 140	3	30
Perfluorobutanesulfonic acid (PFBS)	35.5	29.3		ng/L		82	60 - 145	4	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	30.5		ng/L		81	65 - 140	7	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	25.3		ng/L		69	65 - 145	10	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	35.0		ng/L		92	70 - 150	6	30
Perfluorooctanesulfonic acid (PFOS)	37.2	32.0		ng/L		86	55 - 150	3	30
Perfluorononanesulfonic acid (PFNS)	38.5	31.5		ng/L		82	65 - 145	0	30
Perfluorodecanesulfonic acid (PFDS)	38.6	31.1		ng/L		81	60 - 145	4	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	26.0		ng/L		67	50 - 145	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	65.2		ng/L		87	70 - 145	8	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	65.5		ng/L		86	65 - 155	6	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	68.4		ng/L		89	60 - 150	0	30
Perfluorooctanesulfonamide (PFOSA)	40.0	37.3		ng/L		93	70 - 145	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	35.0		ng/L		87	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	35.6		ng/L		89	65 - 145	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	31.7		ng/L		79	50 - 140	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	35.5		ng/L		89	70 - 145	5	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	168		ng/L		84	70 - 145	12	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	180		ng/L		90	70 - 135	13	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	25.2		ng/L		84	70 - 140	9	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	33.0		ng/L		87	65 - 145	5	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	37.2		ng/L		93	55 - 140	8	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	35.1		ng/L		88	60 - 150	9	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-663812/11-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 663812

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	32.6		ng/L		82	50 - 150	7	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	30.9		ng/L		83	70 - 155	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	31.9		ng/L		85	55 - 160	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	25.5		ng/L		72	70 - 140	10	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	66.6		ng/L		83	65 - 130	3	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	149		ng/L		74	70 - 135	1	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	142		ng/L		71	50 - 145	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*94.6*		*5 - 130*
13C5 PFPeA	*96.9*		*40 - 130*
13C5 PFHxA	*98.4*		*40 - 130*
13C4 PFHpA	*93.4*		*40 - 130*
13C8 PFOA	*92.0*		*40 - 130*
13C9 PFNA	*88.6*		*40 - 130*
13C6 PFDA	*90.9*		*40 - 130*
13C7 PFUnA	*92.2*		*30 - 130*
13C2 PFTeDA	*75.3*		*10 - 130*
13C3 PFBS	*81.4*		*40 - 135*
13C3 PFHxS	*91.7*		*40 - 130*
13C8 PFOS	*92.5*		*40 - 130*
13C8 FOSA	*84.6*		*40 - 130*
d3-NMeFOSAA	*111*		*40 - 170*
d5-NEtFOSAA	*93.6*		*25 - 135*
13C2 4:2 FTS	*93.6*		*40 - 200*
13C2 6:2 FTS	*92.2*		*40 - 200*
13C2 8:2 FTS	*85.7*		*40 - 300*
13C3 HFPO-DA	*96.3*		*40 - 130*
d7-N-MeFOSE-M	*81.2*		*10 - 130*
d9-N-EtFOSE-M	*73.9*		*10 - 130*
d5-NEtPFOSA	*77.7*		*10 - 130*
d3-NMePFOSA	*75.9*		*10 - 130*
13C2 PFDoA	*92.0*		*10 - 130*

Lab Sample ID: LLCS 410-663812/12-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	6.52		ng/L		82	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	3.02		ng/L		75	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.22		ng/L		81	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-663812/12-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	2.93		ng/L		73	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.43		ng/L		86	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.01		ng/L		75	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	2.80		ng/L		70	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.82		ng/L		96	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.21		ng/L		80	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.39		ng/L		85	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	2.97		ng/L		74	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.81		ng/L		79	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.57		ng/L		95	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	2.95		ng/L		81	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.27		ng/L		86	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.51		ng/L		94	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.03		ng/L		79	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.04		ng/L		79	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.47		ng/L		64	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.45		ng/L		86	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	6.30		ng/L		83	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.02		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.48		ng/L		87	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.07		ng/L		77	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.38		ng/L		85	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	2.98		ng/L		75	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	2.93		ng/L		73	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	16.3		ng/L		81	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	15.4		ng/L		77	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.85		ng/L		95	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	2.91		ng/L		77	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.16		ng/L		79	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-663812/12-A
Matrix: Water
Analysis Batch: 667308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 663812

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro-4-methoxybutanoic acid (PFMBA)			4.00	3.02		ng/L		76	60 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			4.00	2.63		ng/L		66	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			3.74	2.76		ng/L		74	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			3.78	2.82		ng/L		75	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			3.57	2.50		ng/L		70	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			8.00	5.42		ng/L		68	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			20.0	13.3	*-	ng/L		66	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			20.0	13.8		ng/L		69	50 - 145		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*111*		*5 - 130*
13C5 PFPeA	*116*		*40 - 130*
13C5 PFHxA	*112*		*40 - 130*
13C4 PFHpA	*108*		*40 - 130*
13C8 PFOA	*98.3*		*40 - 130*
13C9 PFNA	*103*		*40 - 130*
13C6 PFDA	*96.7*		*40 - 130*
13C7 PFUnA	*88.5*		*30 - 130*
13C2 PFTeDA	*75.9*		*10 - 130*
13C3 PFBS	*102*		*40 - 135*
13C3 PFHxS	*104*		*40 - 130*
13C8 PFOS	*101*		*40 - 130*
13C8 FOSA	*95.1*		*40 - 130*
d3-NMeFOSAA	*115*		*40 - 170*
d5-NEtFOSAA	*105*		*25 - 135*
13C2 4:2 FTS	*114*		*40 - 200*
13C2 6:2 FTS	*123*		*40 - 200*
13C2 8:2 FTS	*105*		*40 - 300*
13C3 HFPO-DA	*107*		*40 - 130*
d7-N-MeFOSE-M	*80.9*		*10 - 130*
d9-N-EtFOSE-M	*75.6*		*10 - 130*
d5-NEtPFOSA	*81.8*		*10 - 130*
d3-NMePFOSA	*84.7*		*10 - 130*
13C2 PFDoA	*91.0*		*10 - 130*

LCMS

Prep Batch: 663812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-228567-1	DC320038-MW-8	Total/NA	Water	1633A	
410-228567-2	DC320038-MW-4	Total/NA	Water	1633A	
410-228567-3	DC320038-DUP	Total/NA	Water	1633A	
410-228567-4	DC320038-FB	Total/NA	Water	1633A	
410-228567-5	DC320038-EB	Total/NA	Water	1633A	
MB 410-663812/9-A	Method Blank	Total/NA	Water	1633A	
LCS 410-663812/10-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-663812/11-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-663812/12-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 664775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-228567-1	DC320038-MW-8	Total/NA	Water	1633A	663812
410-228567-2	DC320038-MW-4	Total/NA	Water	1633A	663812
410-228567-3	DC320038-DUP	Total/NA	Water	1633A	663812
410-228567-4	DC320038-FB	Total/NA	Water	1633A	663812
410-228567-5	DC320038-EB	Total/NA	Water	1633A	663812
MB 410-663812/9-A	Method Blank	Total/NA	Water	1633A	663812
LCSD 410-663812/11-A	Lab Control Sample Dup	Total/NA	Water	1633A	663812

Analysis Batch: 667308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-663812/10-A	Lab Control Sample	Total/NA	Water	1633A	663812
LLCS 410-663812/12-A	Lab Control Sample	Total/NA	Water	1633A	663812

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Client Sample ID: DC320038-MW-8
Lab Sample ID: 410-228567-1
Date Collected: 06/19/25 09:10
Matrix: Water
Date Received: 06/20/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 23:27

Client Sample ID: DC320038-MW-4
Lab Sample ID: 410-228567-2
Date Collected: 06/19/25 09:57
Matrix: Water
Date Received: 06/20/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 23:40

Client Sample ID: DC320038-DUP
Lab Sample ID: 410-228567-3
Date Collected: 06/19/25 00:00
Matrix: Water
Date Received: 06/20/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 23:54

Client Sample ID: DC320038-FB
Lab Sample ID: 410-228567-4
Date Collected: 06/19/25 10:25
Matrix: Water
Date Received: 06/20/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	07/01/25 00:08

Client Sample ID: DC320038-EB
Lab Sample ID: 410-228567-5
Date Collected: 06/19/25 10:20
Matrix: Water
Date Received: 06/20/25 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			663812	H3KQ	ELLE	06/27/25 07:52
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	07/01/25 00:21

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Method	Method Description	Protocol	Laboratory
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Job ID: 410-228567-1
Project/Site: White Star Laundry (DC320038)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-228567-1	DC320038-MW-8	Water	06/19/25 09:10	06/20/25 09:40
410-228567-2	DC320038-MW-4	Water	06/19/25 09:57	06/20/25 09:40
410-228567-3	DC320038-DUP	Water	06/19/25 00:00	06/20/25 09:40
410-228567-4	DC320038-FB	Water	06/19/25 10:25	06/20/25 09:40
410-228567-5	DC320038-EB	Water	06/19/25 10:20	06/20/25 09:40

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

410-228567 Chain of Custody

eurofins | Environment Testing

Client Information	Sampler: Rachel Schmidt & Nick Stone	Lab PM: Gallagher, Kelly	COC No: 410-159672-44151.1
Client Contact: Mandy Klaben	Phone: 586-457-0233	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC
Company: Hart & Hickman, PC	PWSID:		Page: Page 1 of 1
Address: 3921 Sunset Ridge Rd Suite 301	Due Date Requested:		Job #:
City: Raleigh	TAT Requested (days): Standard H&H (10 days)		
State, Zip: NC, 27607	Compliance Project: Δ Yes Δ No		
Phone: 704-887-4608(Tel)	PO #: DS0 PFAS		
Email: mklaben@harthickman.com	WO #:		
Project Name: White Star Laundry (DC320038)	Project #: 41025876		
Site:	SSOW#:		

Analysis Requested

Preservation Codes: N - None

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final, 1633_TOPS	1633_Final - List of 40 based on EPA method	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	X	
DC320038-MW-8	6/19/25	0910	G	Water	N	N	X	X	3	*Please report J flags
DC320038-MW-4	6/19/25	0957	G	Water	N	N	X	X	3	& report Non-detects
DC320038-DUP	6/19/25		G	Water	N	N		X	2	as <MDL
				Water						*EDD formats: H&H,
DC320038-FB	6/19/25	1025	G	Water	N	N		X	2	DSCA, NCDEQ
DC320038-EB	6/19/25	1020	G	Water	N	N		X	2	*Hold TOP analysis
										until further
										notice *

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Rachel Schmidt	6/19/25 1300	H&H	Brent Bobbin	6/19/25 1340	
2	Brent Bobbin	6/19/25 1600				
3					6/20/25 0940	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 275823

Cooler Temperature(s) °C and Other Remarks: R: 5.6 C: 5.4 CD

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-228567-1

Login Number: 228567

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Burkholder, Conrad

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

YOUNGS CLEANERS

DC290002

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

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JOB DESCRIPTION

Youngs Cleaners (DC290002)

JOB NUMBER

410-227901-2

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

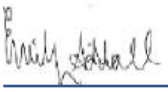
Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
12/16/2025 3:38:30 PM
Revision 2

Authorized for release by
Emily Siddall, Principal Project Manager
Emily.Siddall@et.eurofinsus.com
Designee for
David Barnhart, Senior Project Manager
David.Barnhart@et.eurofinsus.com
(717)656-2300

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Qualifiers

LCMS

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-227901-2

Revision
The report being provided is a revision of the original report sent on 11/12/2025. The report (revision 2) is being revised due to: client requesting the following samples be added to this report: DC290002-DUP, DC290002-EB, DC290002-FB.

Report revision history
Revision 1 - 12/15/2025 - Reason - client requesting the following samples be removed from this report: DC290002-DUP, DC290002-EB, DC290002-FB.

Receipt
The samples were received on 6/18/2025 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0º C.

LCMS
Method 1633 TOPS: The transition mass ratio for Perfluorononanoic acid (PFNA) in sample DC290002-MW-9 (410-227901-4) in analytical batch 410-670196 was outside of the established ratio limits. However, analyst judgment was used to positively identify the analyte. The analyte is flagged appropriately to identify this exceedance.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Client Sample ID: DC290002-MW-9 — Lab Sample ID: 410-227901-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	19	J	20	5.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoropentanoic acid (PFPeA)	30		10	3.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanoic acid (PFHxA)	33		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	57		10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	65		10	4.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorononanoic acid (PFNA)	19	I cn	10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanesulfonic acid (PFBS)	17		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanesulfonic acid (PFHxS)	7.4	J	10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	30		10	6.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanoic acid (PFBA)	8.8		3.2	0.89	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	13		1.6	0.49	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	11		1.6	0.41	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	9.4		1.6	0.65	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	34		1.6	0.73	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	3.2		1.6	0.41	ng/L	1		1633A	Total/NA
Perfluorodecanoic acid (PFDA)	0.50	J	1.6	0.41	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	19		1.6	0.41	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.88	J	1.6	0.41	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.9		1.6	0.65	ng/L	1		1633A	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.72	J	1.6	0.41	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	32		1.6	1.1	ng/L	1		1633A	Total/NA

Client Sample ID: DC290002-MW-3 — Lab Sample ID: 410-227901-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	19		10	3.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorohexanoic acid (PFHxA)	27		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluoroheptanoic acid (PFHpA)	44		10	4.0	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanoic acid (PFOA)	42		10	4.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorononanoic acid (PFNA)	14		10	2.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorooctanesulfonic acid (PFOS)	9.1	J	10	6.5	ng/L	1		1633 TOPS	Post-Treatment
Perfluorobutanoic acid (PFBA)	1.6	J	3.1	0.86	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	2.9		1.6	0.47	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1		1.6	0.39	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.5	J	1.6	0.62	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	6.5		1.6	0.70	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	0.48	J	1.6	0.39	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.2	J	1.6	0.39	ng/L	1		1633A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Client Sample ID: DC290002-MW-3 (Continued) — Lab Sample ID: 410-227901-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanesulfonic acid (PFPeS)	0.57	J	1.6	0.39	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.9		1.6	0.62	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.8		1.6	1.0	ng/L	1		1633A	Total/NA

Client Sample ID: DC290002-EB — Lab Sample ID: 410-227901-6

No Detections.

Client Sample ID: DC290002-FB — Lab Sample ID: 410-227901-7

No Detections.

Client Sample ID: DC290002-DUP — Lab Sample ID: 410-227901-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.7	J	3.1	0.86	ng/L	1		1633A	Total/NA
Perfluoropentanoic acid (PFPeA)	3.0		1.6	0.47	ng/L	1		1633A	Total/NA
Perfluorohexanoic acid (PFHxA)	2.7		1.6	0.39	ng/L	1		1633A	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.6	0.63	ng/L	1		1633A	Total/NA
Perfluorooctanoic acid (PFOA)	5.4		1.6	0.71	ng/L	1		1633A	Total/NA
Perfluorononanoic acid (PFNA)	0.45	J	1.6	0.39	ng/L	1		1633A	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.4	J	1.6	0.39	ng/L	1		1633A	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.63	J	1.6	0.39	ng/L	1		1633A	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.8		1.6	0.63	ng/L	1		1633A	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.9		1.6	1.0	ng/L	1		1633A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Client Sample ID: DC290002-MW-9
Date Collected: 06/16/25 12:05
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-4
Matrix: Water

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**19**	**J**	20	5.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluoropentanoic acid (PFPeA)	**30**		10	3.0	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorohexanoic acid (PFHxA)	**33**		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluoroheptanoic acid (PFHpA)	**57**		10	4.0	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorooctanoic acid (PFOA)	**65**		10	4.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorononanoic acid (PFNA)	**19**	**I cn**	10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorobutanesulfonic acid (PFBS)	**17**		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorohexanesulfonic acid (PFHxS)	**7.4**	**J**	10	4.0	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorooctanesulfonic acid (PFOS)	**30**		10	6.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		07/08/25 09:23	07/11/25 05:53	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 05:53	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 05:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	12	ng/L		07/08/25 09:23	07/11/25 05:53	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		07/08/25 09:23	07/11/25 05:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		07/08/25 09:23	07/11/25 05:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1

Client Sample ID: DC290002-MW-9
Lab Sample ID: 410-227901-4

Date Collected: 06/16/25 12:05
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 05:53	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		07/08/25 09:23	07/11/25 05:53	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	12	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 05:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.9*		*10 - 130*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C5 PFPeA	*93.5*		*35 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C5 PFHxA	*99.4*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C4 PFHpA	*86.3*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C9 PFNA	*94.2*		*55 - 140*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C6 PFDA	*94.6*		*50 - 140*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C7 PFUnA	*89.0*		*30 - 140*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C2 PFTeDA	*84.5*		*10 - 130*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C3 PFBS	*109*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C3 PFHxS	*103*		*55 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C8 PFOS	*111*		*45 - 140*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
d3-NMeFOSAA	*97.6*		*45 - 200*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
d5-NEtFOSAA	*98.1*		*10 - 200*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C2 PFDoA	*85.7*		*10 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C2 4:2 FTS	*104*		*60 - 200*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C2 6:2 FTS	*105*		*60 - 200*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C2 8:2 FTS	*103*		*50 - 200*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C3 HFPO-DA	*84.1*		*25 - 160*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
d7-N-MeFOSE-M	*90.3*		*10 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
d9-N-EtFOSE-M	*87.7*		*10 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
d5-NEtPFOSA	*96.2*		*10 - 130*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
d3-NMePFOSA	*90.3*		*15 - 130*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C8 FOSA	*0.725*		*0 - 10*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
13C2 PFOA	*93.3*		*40 - 130*	*07/08/25 09:23*	*07/11/25 05:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA	*70*		*50 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*
M3PFPeA	*83*		*50 - 150*	*07/08/25 09:23*	*07/11/25 05:53*	*1*

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**8.8**		3.2	0.89	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluoropentanoic acid (PFPeA)	**13**		1.6	0.49	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorohexanoic acid (PFHxA)	**11**		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluoroheptanoic acid (PFHpA)	**9.4**		1.6	0.65	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorooctanoic acid (PFOA)	**34**		1.6	0.73	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorononanoic acid (PFNA)	**3.2**		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorodecanoic acid (PFDA)	**0.50**	**J**	1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1

Client Sample ID: DC290002-MW-9
Date Collected: 06/16/25 12:05
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-4
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorobutanesulfonic acid (PFBS)	**19**		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluoropentanesulfonic acid (PFPeS)	**0.88**	**J**	1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorohexanesulfonic acid (PFHxS)	**5.9**		1.6	0.65	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.72**	**J**	1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorooctanesulfonic acid (PFOS)	**32**		1.6	1.1	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.49	ng/L		06/29/25 10:14	06/30/25 15:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.81	ng/L		06/29/25 10:14	06/30/25 15:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.81	ng/L		06/29/25 10:14	06/30/25 15:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.81	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.1	2.0	ng/L		06/29/25 10:14	06/30/25 15:45	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.1	3.2	ng/L		06/29/25 10:14	06/30/25 15:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		06/29/25 10:14	06/30/25 15:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.41	ng/L		06/29/25 10:14	06/30/25 15:45	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.81	ng/L		06/29/25 10:14	06/30/25 15:45	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*-	8.1	2.3	ng/L		06/29/25 10:14	06/30/25 15:45	1

Client Sample ID: DC290002-MW-9

Lab Sample ID: 410-227901-4

Date Collected: 06/16/25 12:05

Matrix: Water

Date Received: 06/18/25 10:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.1	2.0	ng/L		06/29/25 10:14	06/30/25 15:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.1*		*5 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C5 PFPeA	*98.8*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C5 PFHxA	*99.2*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C4 PFHpA	*96.8*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C8 PFOA	*96.5*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C9 PFNA	*96.4*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C6 PFDA	*95.2*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C7 PFUnA	*95.4*		*30 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C2 PFTeDA	*82.7*		*10 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C3 PFBS	*92.8*		*40 - 135*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C3 PFHxS	*95.1*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C8 PFOS	*95.3*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C8 FOSA	*88.8*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
d3-NMeFOSAA	*84.3*		*40 - 170*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
d5-NEtFOSAA	*95.1*		*25 - 135*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C2 4:2 FTS	*87.2*		*40 - 200*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C2 6:2 FTS	*93.1*		*40 - 200*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C2 8:2 FTS	*91.2*		*40 - 300*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C3 HFPO-DA	*95.9*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
d7-N-MeFOSE-M	*83.5*		*10 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
d9-N-EtFOSE-M	*79.5*		*10 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
d5-NEtPFOSA	*74.4*		*10 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
d3-NMePFOSA	*77.0*		*10 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*
13C2 PFDoA	*91.1*		*10 - 130*	*06/29/25 10:14*	*06/30/25 15:45*	*1*

Client Sample ID: DC290002-MW-3

Lab Sample ID: 410-227901-5

Date Collected: 06/16/25 13:55

Matrix: Water

Date Received: 06/18/25 10:10

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluoropentanoic acid (PFPeA)	**19**		10	3.0	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorohexanoic acid (PFHxA)	**27**		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluoroheptanoic acid (PFHpA)	**44**		10	4.0	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorooctanoic acid (PFOA)	**42**		10	4.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorononanoic acid (PFNA)	**14**		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10	4.0	ng/L		07/08/25 09:23	07/11/25 06:07	1

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Client Sample ID: DC290002-MW-3
Date Collected: 06/16/25 13:55
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-5
Matrix: Water

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorooctanesulfonic acid (PFOS)	**9.1**	**J**	10	6.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		07/08/25 09:23	07/11/25 06:07	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 06:07	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 06:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		07/08/25 09:23	07/11/25 06:07	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		07/08/25 09:23	07/11/25 06:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		07/08/25 09:23	07/11/25 06:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 06:07	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		07/08/25 09:23	07/11/25 06:07	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 06:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88.2*		*10 - 130*	*07/08/25 09:23*	*07/11/25 06:07*	*1*
13C5 PFPeA	*93.0*		*35 - 150*	*07/08/25 09:23*	*07/11/25 06:07*	*1*
13C5 PFHxA	*100*		*55 - 150*	*07/08/25 09:23*	*07/11/25 06:07*	*1*
13C4 PFHpA	*92.6*		*55 - 150*	*07/08/25 09:23*	*07/11/25 06:07*	*1*
13C9 PFNA	*99.2*		*55 - 140*	*07/08/25 09:23*	*07/11/25 06:07*	*1*

Client Sample ID: DC290002-MW-3
Date Collected: 06/16/25 13:55
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-5
Matrix: Water

Method: EPA 1633 TOPS - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6 PFDA	92.0		50 - 140	07/08/25 09:23	07/11/25 06:07	1
13C7 PFUnA	88.4		30 - 140	07/08/25 09:23	07/11/25 06:07	1
13C2 PFTeDA	82.2		10 - 130	07/08/25 09:23	07/11/25 06:07	1
13C3 PFBS	101		55 - 150	07/08/25 09:23	07/11/25 06:07	1
13C3 PFHxS	97.4		55 - 150	07/08/25 09:23	07/11/25 06:07	1
13C8 PFOS	105		45 - 140	07/08/25 09:23	07/11/25 06:07	1
d3-NMeFOSAA	90.2		45 - 200	07/08/25 09:23	07/11/25 06:07	1
d5-NEtFOSAA	91.1		10 - 200	07/08/25 09:23	07/11/25 06:07	1
13C2 PFDoA	83.1		10 - 150	07/08/25 09:23	07/11/25 06:07	1
13C2 4:2 FTS	95.0		60 - 200	07/08/25 09:23	07/11/25 06:07	1
13C2 6:2 FTS	95.6		60 - 200	07/08/25 09:23	07/11/25 06:07	1
13C2 8:2 FTS	96.7		50 - 200	07/08/25 09:23	07/11/25 06:07	1
13C3 HFPO-DA	87.6		25 - 160	07/08/25 09:23	07/11/25 06:07	1
d7-N-MeFOSE-M	90.5		10 - 150	07/08/25 09:23	07/11/25 06:07	1
d9-N-EtFOSE-M	88.1		10 - 150	07/08/25 09:23	07/11/25 06:07	1
d5-NEtPFOSA	92.9		10 - 130	07/08/25 09:23	07/11/25 06:07	1
d3-NMePFOSA	90.1		15 - 130	07/08/25 09:23	07/11/25 06:07	1
13C8 FOSA	0.530		0 - 10	07/08/25 09:23	07/11/25 06:07	1
13C2 PFOA	90.8		40 - 130	07/08/25 09:23	07/11/25 06:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	66		50 - 150	07/08/25 09:23	07/11/25 06:07	1
M3PFPeA	81		50 - 150	07/08/25 09:23	07/11/25 06:07	1

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.6**	**J**	3.1	0.86	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluoropentanoic acid (PFPeA)	**2.9**		1.6	0.47	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorohexanoic acid (PFHxA)	**3.1**		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluoroheptanoic acid (PFHpA)	**1.5**	**J**	1.6	0.62	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorooctanoic acid (PFOA)	**6.5**		1.6	0.70	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorononanoic acid (PFNA)	**0.48**	**J**	1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorobutanesulfonic acid (PFBS)	**1.2**	**J**	1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluoropentanesulfonic acid (PFPeS)	**0.57**	**J**	1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorohexanesulfonic acid (PFHxS)	**1.9**		1.6	0.62	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorooctanesulfonic acid (PFOS)	**5.8**		1.6	1.0	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		06/29/25 10:14	06/30/25 15:58	1

Client Sample ID: DC290002-MW-3
Lab Sample ID: 410-227901-5
Date Collected: 06/16/25 13:55
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.78	ng/L		06/29/25 10:14	06/30/25 15:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.78	ng/L		06/29/25 10:14	06/30/25 15:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.78	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	2.0	ng/L		06/29/25 10:14	06/30/25 15:58	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	3.1	ng/L		06/29/25 10:14	06/30/25 15:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		06/29/25 10:14	06/30/25 15:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 15:58	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.78	ng/L		06/29/25 10:14	06/30/25 15:58	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*-	7.8	2.2	ng/L		06/29/25 10:14	06/30/25 15:58	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	2.0	ng/L		06/29/25 10:14	06/30/25 15:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*92.0*		*5 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C5 PFPeA	*95.8*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C5 PFHxA	*95.2*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C4 PFHpA	*92.9*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C8 PFOA	*92.3*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C9 PFNA	*94.1*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C6 PFDA	*90.4*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C7 PFUnA	*89.3*		*30 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C2 PFTeDA	*72.3*		*10 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C3 PFBS	*88.7*		*40 - 135*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C3 PFHxS	*90.8*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*
13C8 PFOS	*97.6*		*40 - 130*	*06/29/25 10:14*	*06/30/25 15:58*	*1*

Client Sample ID: DC290002-MW-3
Lab Sample ID: 410-227901-5
Date Collected: 06/16/25 13:55
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	85.9		40 - 130	06/29/25 10:14	06/30/25 15:58	1
d3-NMeFOSAA	99.8		40 - 170	06/29/25 10:14	06/30/25 15:58	1
d5-NEtFOSAA	85.2		25 - 135	06/29/25 10:14	06/30/25 15:58	1
13C2 4:2 FTS	88.4		40 - 200	06/29/25 10:14	06/30/25 15:58	1
13C2 6:2 FTS	95.9		40 - 200	06/29/25 10:14	06/30/25 15:58	1
13C2 8:2 FTS	89.8		40 - 300	06/29/25 10:14	06/30/25 15:58	1
13C3 HFPO-DA	93.5		40 - 130	06/29/25 10:14	06/30/25 15:58	1
d7-N-MeFOSE-M	62.7		10 - 130	06/29/25 10:14	06/30/25 15:58	1
d9-N-EtFOSE-M	51.0		10 - 130	06/29/25 10:14	06/30/25 15:58	1
d5-NEtPFOSA	78.1		10 - 130	06/29/25 10:14	06/30/25 15:58	1
d3-NMePFOSA	78.3		10 - 130	06/29/25 10:14	06/30/25 15:58	1
13C2 PFDoA	85.8		10 - 130	06/29/25 10:14	06/30/25 15:58	1

Client Sample ID: DC290002-EB
Lab Sample ID: 410-227901-6
Date Collected: 06/16/25 13:40
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.5	0.96	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.52	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.70	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.79	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.70	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	1.1	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorononanesulfonic acid (PFNS)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.7	0.52	ng/L		06/29/25 10:14	06/30/25 16:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.5	0.87	ng/L		06/29/25 10:14	06/30/25 16:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.5	0.87	ng/L		06/29/25 10:14	06/30/25 16:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.5	0.87	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Client Sample ID: DC290002-EB
Date Collected: 06/16/25 13:40
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-6
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.7	2.2	ng/L		06/29/25 10:14	06/30/25 16:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.7	3.5	ng/L		06/29/25 10:14	06/30/25 16:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.7	1.2	ng/L		06/29/25 10:14	06/30/25 16:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.7	0.44	ng/L		06/29/25 10:14	06/30/25 16:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.5	0.87	ng/L		06/29/25 10:14	06/30/25 16:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*-	8.7	2.4	ng/L		06/29/25 10:14	06/30/25 16:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.7	2.2	ng/L		06/29/25 10:14	06/30/25 16:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*104*		*5 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C5 PFPeA	*113*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C5 PFHxA	*119*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C4 PFHpA	*112*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C8 PFOA	*106*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C9 PFNA	*103*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C6 PFDA	*103*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C7 PFUnA	*104*		*30 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C2 PFTeDA	*95.4*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C3 PFBS	*104*		*40 - 135*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C3 PFHxS	*103*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C8 PFOS	*103*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C8 FOSA	*98.8*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
d3-NMeFOSAA	*116*		*40 - 170*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
d5-NEtFOSAA	*105*		*25 - 135*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C2 4:2 FTS	*104*		*40 - 200*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C2 6:2 FTS	*109*		*40 - 200*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C2 8:2 FTS	*99.9*		*40 - 300*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C3 HFPO-DA	*112*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
d7-N-MeFOSE-M	*92.9*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
d9-N-EtFOSE-M	*77.6*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
d5-NEtPFOSA	*85.2*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*

Client Sample ID: DC290002-EB
Lab Sample ID: 410-227901-6

Date Collected: 06/16/25 13:40
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMePFOSA	*84.8*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*
13C2 PFDoA	*107*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:12*	*1*

Client Sample ID: DC290002-FB
Lab Sample ID: 410-227901-7

Date Collected: 06/16/25 13:50
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2	0.89	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.48	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.65	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.73	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	1.0	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.48	ng/L		06/29/25 10:14	06/30/25 16:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.2	0.81	ng/L		06/29/25 10:14	06/30/25 16:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.2	0.81	ng/L		06/29/25 10:14	06/30/25 16:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.2	0.81	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		8.1	2.0	ng/L		06/29/25 10:14	06/30/25 16:25	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		8.1	3.2	ng/L		06/29/25 10:14	06/30/25 16:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		06/29/25 10:14	06/30/25 16:25	1

Client Sample ID: DC290002-FB
Date Collected: 06/16/25 13:50
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-7
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.40	ng/L		06/29/25 10:14	06/30/25 16:25	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.2	0.81	ng/L		06/29/25 10:14	06/30/25 16:25	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*-	8.1	2.3	ng/L		06/29/25 10:14	06/30/25 16:25	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		8.1	2.0	ng/L		06/29/25 10:14	06/30/25 16:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.4*		*5 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C5 PFPeA	*97.5*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C5 PFHxA	*101*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C4 PFHpA	*95.2*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C8 PFOA	*95.2*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C9 PFNA	*94.9*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C6 PFDA	*99.1*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C7 PFUnA	*105*		*30 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C2 PFTeDA	*96.3*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C3 PFBS	*89.2*		*40 - 135*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C3 PFHxS	*90.9*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C8 PFOS	*100*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C8 FOSA	*90.5*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
d3-NMeFOSAA	*115*		*40 - 170*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
d5-NEtFOSAA	*105*		*25 - 135*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C2 4:2 FTS	*93.0*		*40 - 200*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C2 6:2 FTS	*99.0*		*40 - 200*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C2 8:2 FTS	*92.2*		*40 - 300*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C3 HFPO-DA	*94.4*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
d7-N-MeFOSE-M	*87.3*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
d9-N-EtFOSE-M	*76.3*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
d5-NEtPFOSA	*81.4*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
d3-NMePFOSA	*79.2*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*
13C2 PFDoA	*104*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:25*	*1*

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Client Sample ID: DC290002-DUP
Date Collected: 06/16/25 00:00
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-8
Matrix: Water

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.7**	**J**	3.1	0.86	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluoropentanoic acid (PFPeA)	**3.0**		1.6	0.47	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorohexanoic acid (PFHxA)	**2.7**		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluoroheptanoic acid (PFHpA)	**1.4**	**J**	1.6	0.63	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorooctanoic acid (PFOA)	**5.4**		1.6	0.71	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorononanoic acid (PFNA)	**0.45**	**J**	1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorobutanesulfonic acid (PFBS)	**1.4**	**J**	1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluoropentanesulfonic acid (PFPeS)	**0.63**	**J**	1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorohexanesulfonic acid (PFHxS)	**1.8**		1.6	0.63	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorooctanesulfonic acid (PFOS)	**5.9**		1.6	1.0	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6	0.47	ng/L		06/29/25 10:14	06/30/25 16:39	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		3.1	0.78	ng/L		06/29/25 10:14	06/30/25 16:39	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		3.1	0.78	ng/L		06/29/25 10:14	06/30/25 16:39	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.1	0.78	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		7.8	2.0	ng/L		06/29/25 10:14	06/30/25 16:39	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		7.8	3.1	ng/L		06/29/25 10:14	06/30/25 16:39	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.6	1.1	ng/L		06/29/25 10:14	06/30/25 16:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1

Client Sample ID: DC290002-DUP
Lab Sample ID: 410-227901-8
Date Collected: 06/16/25 00:00
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1.6	0.39	ng/L		06/29/25 10:14	06/30/25 16:39	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		3.1	0.78	ng/L		06/29/25 10:14	06/30/25 16:39	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	*-	7.8	2.2	ng/L		06/29/25 10:14	06/30/25 16:39	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		7.8	2.0	ng/L		06/29/25 10:14	06/30/25 16:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*80.5*		*5 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C5 PFPeA	*80.4*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C5 PFHxA	*83.9*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C4 PFHpA	*78.1*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C8 PFOA	*82.8*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C9 PFNA	*84.0*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C6 PFDA	*83.8*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C7 PFUnA	*86.0*		*30 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C2 PFTeDA	*71.7*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C3 PFBS	*80.1*		*40 - 135*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C3 PFHxS	*85.4*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C8 PFOS	*87.9*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C8 FOSA	*78.1*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
d3-NMeFOSAA	*91.3*		*40 - 170*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
d5-NEtFOSAA	*78.3*		*25 - 135*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C2 4:2 FTS	*78.6*		*40 - 200*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C2 6:2 FTS	*86.3*		*40 - 200*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C2 8:2 FTS	*87.2*		*40 - 300*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C3 HFPO-DA	*80.0*		*40 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
d7-N-MeFOSE-M	*60.0*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
d9-N-EtFOSE-M	*48.8*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
d5-NEtPFOSA	*69.7*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
d3-NMePFOSA	*70.9*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*
13C2 PFDoA	*83.4*		*10 - 130*	*06/29/25 10:14*	*06/30/25 16:39*	*1*

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)	
		PFUnA	C3PFPeA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
410-227901-4	DC290002-MW-9	70	83
410-227901-5	DC290002-MW-3	66	81

Surrogate Legend

PFUnA = 13C2 PFUnA
C3PFPeA = M3PFPeA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)	
		PFUnA	C3PFPeA
Lab Sample ID	Client Sample ID		
MB 410-668147/1-A	Method Blank		

Surrogate Legend

PFUnA = 13C2 PFUnA
C3PFPeA = M3PFPeA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(55-140)	(50-140)	(30-140)	(10-130)
410-227901-4	DC290002-MW-9	92.9	93.5	99.4	86.3	94.2	94.6	89.0	84.5
410-227901-5	DC290002-MW-3	88.2	93.0	100	92.6	99.2	92.0	88.4	82.2
MB 410-668147/1-A	Method Blank	88.6	94.1	101	94.7	97.3	85.3	77.1	75.2

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFOS	PFDoA	M242FTS	M262FTS
Lab Sample ID	Client Sample ID	(55-150)	(55-150)	(45-140)	(45-200)	(10-200)	(10-150)	(60-200)	(60-200)
410-227901-4	DC290002-MW-9	109	103	111	97.6	98.1	85.7	104	105
410-227901-5	DC290002-MW-3	101	97.4	105	90.2	91.1	83.1	95.0	95.6
MB 410-668147/1-A	Method Blank	101	94.1	101	87.9	90.8	78.7	94.9	101

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFOSA	13PFOA
Lab Sample ID	Client Sample ID	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)	(0-10)	(40-130)
410-227901-4	DC290002-MW-9	103	84.1	90.3	87.7	96.2	90.3	0.725	93.3
410-227901-5	DC290002-MW-3	96.7	87.6	90.5	88.1	92.9	90.1	0.530	90.8
MB 410-668147/1-A	Method Blank	92.1	93.5	85.1	88.4	86.0	86.6		88.7

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFOSA = 13C8 FOSA
13PFOA = 13C2 PFOA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C9PFNA	C6PFDA	13C7PUA	PFTDA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(20-140)	(20-140)	(10-130)
LCS 410-668147/2-A	Lab Control Sample	86.0	89.0	93.6	84.1	96.5	84.8	77.3	59.4
LCSD 410-668147/3-A	Lab Control Sample Dup	80.9	79.2	86.3	76.9	89.7	79.9	76.6	71.2

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-130)	PFPeA (40-150)	13C5PHA (40-150)	C4PFHA (40-150)	C9PFNA (30-140)	C6PFDA (20-140)	13C7PUA (20-140)	PFTDA (10-130)
LLCS 410-668147/4-A	Lab Control Sample	84.3	82.1	87.3	80.9	92.7	78.4	80.2	66.3

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	C3PFBS (25-150)	C3PFHS (25-150)	C8PFOS (20-140)	d3NMFOS (10-200)	d5NEFOS (10-200)	PFDoA (10-150)	M242FTS (25-200)	M262FTS (25-200)
LCS 410-668147/2-A	Lab Control Sample	96.1	92.4	95.4	84.5	81.8	75.5	90.8	91.1
LCSD 410-668147/3-A	Lab Control Sample Dup	89.6	86.4	94.4	90.3	90.4	73.3	85.3	86.7
LLCS 410-668147/4-A	Lab Control Sample	93.1	91.2	94.9	87.6	84.7	73.5	93.5	91.0

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	M282FTS (25-200)	HFPODA (25-160)	NMFM (10-150)	NEFM (10-150)	d5NPFSA (10-130)	d3NMFSA (10-130)	13PFOA (40-130)
LCS 410-668147/2-A	Lab Control Sample	87.2	82.0	76.6	75.3	83.1	74.5	87.7
LCSD 410-668147/3-A	Lab Control Sample Dup	84.6	73.8	80.2	82.1	83.1	78.5	80.8
LLCS 410-668147/4-A	Lab Control Sample	87.8	75.4	79.7	84.5	82.7	74.5	83.5

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFDoA = 13C2 PFDoA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
13PFOA = 13C2 PFOA

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
410-227901-4	DC290002-MW-9	96.1	98.8	99.2	96.8	96.5	96.4	95.2	95.4
410-227901-5	DC290002-MW-3	92.0	95.8	95.2	92.9	92.3	94.1	90.4	89.3
410-227901-6	DC290002-EB	104	113	119	112	106	103	103	104
410-227901-7	DC290002-FB	94.4	97.5	101	95.2	95.2	94.9	99.1	105
410-227901-8	DC290002-DUP	80.5	80.4	83.9	78.1	82.8	84.0	83.8	86.0

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227901-2
Project/Site: Youngs Cleaners (DC290002)

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
LCS 410-664516/3-A	Lab Control Sample	91.3	91.8	97.7	94.0	89.6	93.4	90.7	71.6
LCSD 410-664516/4-A	Lab Control Sample Dup	94.5	101	104	101	94.9	97.7	93.8	93.9
LLCS 410-664516/5-A	Lab Control Sample	93.3	99.8	95.8	96.0	92.5	90.7	89.3	85.5
MB 410-664516/2-A	Method Blank	91.7	93.7	95.2	89.1	79.5	82.4	88.9	90.4

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)	M242FTS (40-200)
410-227901-4	DC290002-MW-9	82.7	92.8	95.1	95.3	88.8	84.3	95.1	87.2
410-227901-5	DC290002-MW-3	72.3	88.7	90.8	97.6	85.9	99.8	85.2	88.4
410-227901-6	DC290002-EB	95.4	104	103	103	98.8	116	105	104
410-227901-7	DC290002-FB	96.3	89.2	90.9	100	90.5	115	105	93.0
410-227901-8	DC290002-DUP	71.7	80.1	85.4	87.9	78.1	91.3	78.3	78.6
LCS 410-664516/3-A	Lab Control Sample	66.7	83.2	86.0	90.0	91.2	45.3	49.0	91.2
LCSD 410-664516/4-A	Lab Control Sample Dup	76.0	87.8	99.0	96.7	87.2	80.8	89.7	99.7
LLCS 410-664516/5-A	Lab Control Sample	78.0	87.3	87.1	89.2	80.3	61.0	72.6	87.9
MB 410-664516/2-A	Method Blank	77.3	78.8	78.9	81.1	81.3	73.6	80.2	93.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)	PFDoA (10-130)
410-227901-4	DC290002-MW-9	93.1	91.2	95.9	83.5	79.5	74.4	77.0	91.1
410-227901-5	DC290002-MW-3	95.9	89.8	93.5	62.7	51.0	78.1	78.3	85.8
410-227901-6	DC290002-EB	109	99.9	112	92.9	77.6	85.2	84.8	107
410-227901-7	DC290002-FB	99.0	92.2	94.4	87.3	76.3	81.4	79.2	104
410-227901-8	DC290002-DUP	86.3	87.2	80.0	60.0	48.8	69.7	70.9	83.4
LCS 410-664516/3-A	Lab Control Sample	96.1	80.1	91.6	78.2	67.3	70.5	64.0	70.3
LCSD 410-664516/4-A	Lab Control Sample Dup	98.4	97.2	103	62.2	58.8	71.7	69.3	94.8
LLCS 410-664516/5-A	Lab Control Sample	98.1	87.4	94.0	77.3	64.5	66.4	62.0	89.9
MB 410-664516/2-A	Method Blank	90.3	82.9	93.4	75.0	60.7	65.0	61.9	88.4

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227901-2
Project/Site: Youngs Cleaners (DC290002)

NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoA = 13C2 PFDoA

Method: 1633 TOPS - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-668147/1-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	5.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoropentanoic acid (PFPeA)	ND		10	3.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorohexanoic acid (PFHxA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoroheptanoic acid (PFHpA)	ND		10	4.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorooctanoic acid (PFOA)	ND		10	4.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorononanoic acid (PFNA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorodecanoic acid (PFDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoroundecanoic acid (PFUnA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorododecanoic acid (PFDoA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorotridecanoic acid (PFTrDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorotetradecanoic acid (PFTeDA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorobutanesulfonic acid (PFBS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoropentanesulfonic acid (PFPeS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10	4.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorooctanesulfonic acid (PFOS)	ND		10	6.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorononanesulfonic acid (PFNS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorododecanesulfonic acid (PFDoS)	ND		10	3.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		50	13	ng/L		07/08/25 09:23	07/11/25 04:18	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		50	20	ng/L		07/08/25 09:23	07/11/25 04:18	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		10	7.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-668147/1-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Method Blank
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		20	5.0	ng/L		07/08/25 09:23	07/11/25 04:18	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		50	14	ng/L		07/08/25 09:23	07/11/25 04:18	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		50	13	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluorodecanesulfonic acid (PFDS)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		10	2.5	ng/L		07/08/25 09:23	07/11/25 04:18	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88.6*		*10 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C5 PFPeA	*94.1*		*35 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C5 PFHxA	*101*		*55 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C4 PFHpA	*94.7*		*55 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C9 PFNA	*97.3*		*55 - 140*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C6 PFDA	*85.3*		*50 - 140*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C7 PFUnA	*77.1*		*30 - 140*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 PFTeDA	*75.2*		*10 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C3 PFBS	*101*		*55 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C3 PFHxS	*94.1*		*55 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C8 PFOS	*101*		*45 - 140*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d3-NMeFOSAA	*87.9*		*45 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d5-NEtFOSAA	*90.8*		*10 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 PFDoA	*78.7*		*10 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 4:2 FTS	*94.9*		*60 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 6:2 FTS	*101*		*60 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 8:2 FTS	*92.1*		*50 - 200*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C3 HFPO-DA	*93.5*		*25 - 160*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d7-N-MeFOSE-M	*85.1*		*10 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d9-N-EtFOSE-M	*88.4*		*10 - 150*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d5-NEtPFOSA	*86.0*		*10 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
d3-NMePFOSA	*86.6*		*15 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*
13C2 PFOA	*88.7*		*40 - 130*	*07/08/25 09:23*	*07/11/25 04:18*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFUnA				*07/08/25 09:23*	*07/11/25 04:18*	*1*
M3PFPeA				*07/08/25 09:23*	*07/11/25 04:18*	*1*

Lab Sample ID: LCS 410-668147/2-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	400	359		ng/L		90	58 - 148
Perfluoropentanoic acid (PFPeA)	200	177		ng/L		89	54 - 152
Perfluorohexanoic acid (PFHxA)	200	170		ng/L		85	55 - 152
Perfluoroheptanoic acid (PFHpA)	200	184		ng/L		92	54 - 154

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-668147/2-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanoic acid (PFOA)	200	169		ng/L		84	52 - 161
Perfluorononanoic acid (PFNA)	200	169		ng/L		85	59 - 149
Perfluorodecanoic acid (PFDA)	200	163		ng/L		82	52 - 147
Perfluoroundecanoic acid (PFUnA)	200	185		ng/L		92	48 - 159
Perfluorododecanoic acid (PFDoA)	200	178		ng/L		89	64 - 142
Perfluorotridecanoic acid (PFTrDA)	200	173		ng/L		86	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	200	164		ng/L		82	47 - 161
Perfluorobutanesulfonic acid (PFBS)	178	143		ng/L		80	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	188	177		ng/L		94	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	182	142		ng/L		78	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	191	154		ng/L		81	55 - 152
Perfluorooctanesulfonic acid (PFOS)	186	151		ng/L		81	58 - 149
Perfluorononanesulfonic acid (PFNS)	192	155		ng/L		81	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	194	131		ng/L		68	36 - 145
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	375	351		ng/L		93	67 - 146
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	381	342		ng/L		90	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	384	326		ng/L		85	63 - 152
Perfluorooctanesulfonamide (PFOSA)	200	184		ng/L		92	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	200	182		ng/L		91	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	200	174		ng/L		87	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	200	182		ng/L		91	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	200	182		ng/L		91	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	1000	954		ng/L		95	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	1000	954		ng/L		95	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	150	145		ng/L		97	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	189	180		ng/L		95	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	200	187		ng/L		93	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	200	185		ng/L		92	48 - 161

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-668147/2-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			187	169		ng/L		91	56 - 156		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	176		ng/L		93	46 - 156		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	158		ng/L		89	56 - 151		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	347		ng/L		87	62 - 129		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	739		ng/L		74	63 - 134		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	643		ng/L		64	50 - 138		
Perfluorodecanesulfonic acid (PFDS)			193	157		ng/L		82	51 - 147		
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	187		ng/L		94	51 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*86.0*		*10 - 130*
13C5 PFPeA	*89.0*		*40 - 150*
13C5 PFHxA	*93.6*		*40 - 150*
13C4 PFHpA	*84.1*		*40 - 150*
13C9 PFNA	*96.5*		*30 - 140*
13C6 PFDA	*84.8*		*20 - 140*
13C7 PFUnA	*77.3*		*20 - 140*
13C2 PFTeDA	*59.4*		*10 - 130*
13C3 PFBS	*96.1*		*25 - 150*
13C3 PFHxS	*92.4*		*25 - 150*
13C8 PFOS	*95.4*		*20 - 140*
d3-NMeFOSAA	*84.5*		*10 - 200*
d5-NEtFOSAA	*81.8*		*10 - 200*
13C2 PFDoA	*75.5*		*10 - 150*
13C2 4:2 FTS	*90.8*		*25 - 200*
13C2 6:2 FTS	*91.1*		*25 - 200*
13C2 8:2 FTS	*87.2*		*25 - 200*
13C3 HFPO-DA	*82.0*		*25 - 160*
d7-N-MeFOSE-M	*76.6*		*10 - 150*
d9-N-EtFOSE-M	*75.3*		*10 - 150*
d5-NEtPFOSA	*83.1*		*10 - 130*
d3-NMePFOSA	*74.5*		*10 - 130*
13C2 PFOA	*87.7*		*40 - 130*

Lab Sample ID: LCSD 410-668147/3-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			400	368		ng/L		92	58 - 148	3	30
Perfluoropentanoic acid (PFPeA)			200	177		ng/L		88	54 - 152	0	30

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-668147/3-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)	200	165		ng/L		82	55 - 152	3	30
Perfluoroheptanoic acid (PFHpA)	200	178		ng/L		89	54 - 154	4	30
Perfluorooctanoic acid (PFOA)	200	178		ng/L		89	52 - 161	5	30
Perfluorononanoic acid (PFNA)	200	194		ng/L		97	59 - 149	13	30
Perfluorodecanoic acid (PFDA)	200	165		ng/L		82	52 - 147	1	30
Perfluoroundecanoic acid (PFUnA)	200	185		ng/L		92	48 - 159	0	30
Perfluorododecanoic acid (PFDoA)	200	169		ng/L		84	64 - 142	5	30
Perfluorotridecanoic acid (PFTrDA)	200	175		ng/L		87	49 - 148	1	30
Perfluorotetradecanoic acid (PFTeDA)	200	183		ng/L		91	47 - 161	11	30
Perfluorobutanesulfonic acid (PFBS)	178	142		ng/L		80	62 - 144	0	30
Perfluoropentanesulfonic acid (PFPeS)	188	183		ng/L		98	59 - 151	3	30
Perfluorohexanesulfonic acid (PFHxS)	182	150		ng/L		82	57 - 146	5	30
Perfluoroheptanesulfonic acid (PFHpS)	191	167		ng/L		87	55 - 152	8	30
Perfluorooctanesulfonic acid (PFOS)	186	157		ng/L		85	58 - 149	4	30
Perfluorononanesulfonic acid (PFNS)	192	164		ng/L		85	52 - 148	5	30
Perfluorododecanesulfonic acid (PFDoS)	194	168		ng/L		87	36 - 145	25	30
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	375	346		ng/L		92	67 - 146	1	30
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	381	351		ng/L		92	61 - 151	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	384	344		ng/L		90	63 - 152	5	30
Perfluorooctanesulfonamide (PFOSA)	200	181		ng/L		91	61 - 148	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	200	188		ng/L		94	63 - 145	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	200	179		ng/L		90	65 - 139	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	200	181		ng/L		91	58 - 144	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	200	182		ng/L		91	59 - 146	0	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	1000	973		ng/L		97	71 - 136	2	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	1000	939		ng/L		94	69 - 137	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	150	146		ng/L		97	63 - 144	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	189	188		ng/L		100	68 - 146	5	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	200	192		ng/L		96	55 - 148	3	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	200	183		ng/L		91	48 - 161	1	30

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-668147/3-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample Dup
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			187	175		ng/L		94	56 - 156	3	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			189	182		ng/L		97	46 - 156	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			178	150		ng/L		84	56 - 151	5	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			400	365		ng/L		91	62 - 129	5	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			1000	735		ng/L		74	63 - 134	0	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			1000	663		ng/L		66	50 - 138	3	30
Perfluorodecanesulfonic acid (PFDS)			193	172		ng/L		89	51 - 147	9	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			200	188		ng/L		94	51 - 145	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*80.9*		*10 - 130*
13C5 PFPeA	*79.2*		*40 - 150*
13C5 PFHxA	*86.3*		*40 - 150*
13C4 PFHpA	*76.9*		*40 - 150*
13C9 PFNA	*89.7*		*30 - 140*
13C6 PFDA	*79.9*		*20 - 140*
13C7 PFUnA	*76.6*		*20 - 140*
13C2 PFTeDA	*71.2*		*10 - 130*
13C3 PFBS	*89.6*		*25 - 150*
13C3 PFHxS	*86.4*		*25 - 150*
13C8 PFOS	*94.4*		*20 - 140*
d3-NMeFOSAA	*90.3*		*10 - 200*
d5-NEtFOSAA	*90.4*		*10 - 200*
13C2 PFDoA	*73.3*		*10 - 150*
13C2 4:2 FTS	*85.3*		*25 - 200*
13C2 6:2 FTS	*86.7*		*25 - 200*
13C2 8:2 FTS	*84.6*		*25 - 200*
13C3 HFPO-DA	*73.8*		*25 - 160*
d7-N-MeFOSE-M	*80.2*		*10 - 150*
d9-N-EtFOSE-M	*82.1*		*10 - 150*
d5-NEtPFOSA	*83.1*		*10 - 130*
d3-NMePFOSA	*78.5*		*10 - 130*
13C2 PFOA	*80.8*		*40 - 130*

Lab Sample ID: LLCS 410-668147/4-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)			40.0	37.3		ng/L		93	44 - 157		
Perfluoropentanoic acid (PFPeA)			20.0	18.1		ng/L		90	57 - 148		

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-668147/4-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid (PFHxA)	20.0	19.7		ng/L		99	62 - 149
Perfluoroheptanoic acid (PFHpA)	20.0	18.0		ng/L		90	56 - 150
Perfluorooctanoic acid (PFOA)	20.0	17.8		ng/L		89	57 - 161
Perfluorononanoic acid (PFNA)	20.0	16.1		ng/L		80	53 - 157
Perfluorodecanoic acid (PFDA)	20.0	19.1		ng/L		96	43 - 158
Perfluoroundecanoic acid (PFUnA)	20.0	16.1		ng/L		80	50 - 155
Perfluorododecanoic acid (PFDoA)	20.0	17.2		ng/L		86	60 - 141
Perfluorotridecanoic acid (PFTrDA)	20.0	16.3		ng/L		81	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	20.0	13.9		ng/L		69	52 - 156
Perfluorobutanesulfonic acid (PFBS)	17.8	14.6		ng/L		82	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	18.8	19.1		ng/L		102	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	18.2	22.2		ng/L		121	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	19.1	16.2		ng/L		85	51 - 150
Perfluorooctanesulfonic acid (PFOS)	18.6	23.0		ng/L		123	43 - 162
Perfluorononanesulfonic acid (PFNS)	19.2	14.6		ng/L		76	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	19.4	13.0		ng/L		67	30 - 138
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	37.5	34.8		ng/L		93	52 - 158
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	38.1	37.3		ng/L		98	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	38.4	36.4		ng/L		95	46 - 165
Perfluorooctanesulfonamide (PFOSA)	20.0	16.7		ng/L		84	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	20.0	19.0		ng/L		95	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	20.0	18.7		ng/L		94	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20.0	18.5		ng/L		93	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20.0	20.5		ng/L		102	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	100	104		ng/L		104	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	100	93.9		ng/L		94	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	15.0	13.7		ng/L		91	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	18.9	17.7		ng/L		93	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	20.0	18.1		ng/L		91	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	20.0	14.7		ng/L		73	47 - 160

Method: 1633 TOPS - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 410-668147/4-A
Matrix: Water
Analysis Batch: 670196

Client Sample ID: Lab Control Sample
Prep Type: Post-Treatment
Prep Batch: 668147

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	18.7	15.9		ng/L		85	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	18.9	15.9		ng/L		84	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	17.8	14.2		ng/L		79	56 - 144
3-Perfluoropropylpropanoic acid (3:3 FTCA)	40.0	39.1		ng/L		98	32 - 161
3-Perfluoropentylpropanoic acid (5:3 FTCA)	100	68.2		ng/L		68	39 - 156
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	100	71.2		ng/L		71	36 - 149
Perfluorodecanesulfonic acid (PFDS)	19.3	15.9		ng/L		82	50 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	20.0	18.9		ng/L		94	48 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*84.3*		*10 - 130*
13C5 PFPeA	*82.1*		*40 - 150*
13C5 PFHxA	*87.3*		*40 - 150*
13C4 PFHpA	*80.9*		*40 - 150*
13C9 PFNA	*92.7*		*30 - 140*
13C6 PFDA	*78.4*		*20 - 140*
13C7 PFUnA	*80.2*		*20 - 140*
13C2 PFTeDA	*66.3*		*10 - 130*
13C3 PFBS	*93.1*		*25 - 150*
13C3 PFHxS	*91.2*		*25 - 150*
13C8 PFOS	*94.9*		*20 - 140*
d3-NMeFOSAA	*87.6*		*10 - 200*
d5-NEtFOSAA	*84.7*		*10 - 200*
13C2 PFDoA	*73.5*		*10 - 150*
13C2 4:2 FTS	*93.5*		*25 - 200*
13C2 6:2 FTS	*91.0*		*25 - 200*
13C2 8:2 FTS	*87.8*		*25 - 200*
13C3 HFPO-DA	*75.4*		*25 - 160*
d7-N-MeFOSE-M	*79.7*		*10 - 150*
d9-N-EtFOSE-M	*84.5*		*10 - 150*
d5-NEtPFOSA	*82.7*		*10 - 130*
d3-NMePFOSA	*74.5*		*10 - 130*
13C2 PFOA	*83.5*		*40 - 130*

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A

Lab Sample ID: MB 410-664516/2-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 664516

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	1.1	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.60	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.90	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.60	ng/L		06/29/25 10:14	06/30/25 14:37	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		4.0	1.0	ng/L		06/29/25 10:14	06/30/25 14:37	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		4.0	1.0	ng/L		06/29/25 10:14	06/30/25 14:37	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		4.0	1.0	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		10	2.5	ng/L		06/29/25 10:14	06/30/25 14:37	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		10	4.0	ng/L		06/29/25 10:14	06/30/25 14:37	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.4	ng/L		06/29/25 10:14	06/30/25 14:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: MB 410-664516/2-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 664516

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0	0.50	ng/L		06/29/25 10:14	06/30/25 14:37	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		4.0	1.0	ng/L		06/29/25 10:14	06/30/25 14:37	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		10	2.8	ng/L		06/29/25 10:14	06/30/25 14:37	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		10	2.5	ng/L		06/29/25 10:14	06/30/25 14:37	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*91.7*		*5 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C5 PFPeA	*93.7*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C5 PFHxA	*95.2*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C4 PFHpA	*89.1*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C8 PFOA	*79.5*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C9 PFNA	*82.4*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C6 PFDA	*88.9*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C7 PFUnA	*90.4*		*30 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C2 PFTeDA	*77.3*		*10 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C3 PFBS	*78.8*		*40 - 135*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C3 PFHxS	*78.9*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C8 PFOS	*81.1*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C8 FOSA	*81.3*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
d3-NMeFOSAA	*73.6*		*40 - 170*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
d5-NEtFOSAA	*80.2*		*25 - 135*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C2 4:2 FTS	*93.5*		*40 - 200*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C2 6:2 FTS	*90.3*		*40 - 200*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C2 8:2 FTS	*82.9*		*40 - 300*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C3 HFPO-DA	*93.4*		*40 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
d7-N-MeFOSE-M	*75.0*		*10 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
d9-N-EtFOSE-M	*60.7*		*10 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
d5-NEtPFOSA	*65.0*		*10 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
d3-NMePFOSA	*61.9*		*10 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*
13C2 PFDoA	*88.4*		*10 - 130*	*06/29/25 10:14*	*06/30/25 14:37*	*1*

Lab Sample ID: LCS 410-664516/3-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	70.1		ng/L		88	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	37.8		ng/L		95	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	33.9		ng/L		85	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	36.1		ng/L		90	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	34.3		ng/L		86	70 - 150
Perfluorononanoic acid (PFNA)	40.0	34.3		ng/L		86	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	35.6		ng/L		89	70 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-664516/3-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	38.2		ng/L		95	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	38.3		ng/L		96	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	45.6		ng/L		114	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	37.1		ng/L		93	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	31.1		ng/L		87	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	34.3		ng/L		91	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	28.4		ng/L		78	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	34.8		ng/L		91	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	34.0		ng/L		91	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	32.0		ng/L		83	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	34.4		ng/L		89	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	26.8		ng/L		69	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	69.4		ng/L		92	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	65.8		ng/L		86	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	72.6		ng/L		94	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	37.5		ng/L		94	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.0		ng/L		98	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.0		ng/L		93	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	34.6		ng/L		87	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	34.3		ng/L		86	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	177		ng/L		88	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	193		ng/L		96	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	28.9		ng/L		96	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.1		ng/L		93	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	40.6		ng/L		101	55 - 140
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	38.0		ng/L		95	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	37.7		ng/L		94	50 - 150

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCS 410-664516/3-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664516

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	35.5		ng/L		95	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	33.1		ng/L		88	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	26.9		ng/L		75	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	69.8		ng/L		87	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	128	*-	ng/L		64	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	134		ng/L		67	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*91.3*		*5 - 130*
13C5 PFPeA	*91.8*		*40 - 130*
13C5 PFHxA	*97.7*		*40 - 130*
13C4 PFHpA	*94.0*		*40 - 130*
13C8 PFOA	*89.6*		*40 - 130*
13C9 PFNA	*93.4*		*40 - 130*
13C6 PFDA	*90.7*		*40 - 130*
13C7 PFUnA	*71.6*		*30 - 130*
13C2 PFTeDA	*66.7*		*10 - 130*
13C3 PFBS	*83.2*		*40 - 135*
13C3 PFHxS	*86.0*		*40 - 130*
13C8 PFOS	*90.0*		*40 - 130*
13C8 FOSA	*91.2*		*40 - 130*
d3-NMeFOSAA	*45.3*		*40 - 170*
d5-NEtFOSAA	*49.0*		*25 - 135*
13C2 4:2 FTS	*91.2*		*40 - 200*
13C2 6:2 FTS	*96.1*		*40 - 200*
13C2 8:2 FTS	*80.1*		*40 - 300*
13C3 HFPO-DA	*91.6*		*40 - 130*
d7-N-MeFOSE-M	*78.2*		*10 - 130*
d9-N-EtFOSE-M	*67.3*		*10 - 130*
d5-NEtPFOSA	*70.5*		*10 - 130*
d3-NMePFOSA	*64.0*		*10 - 130*
13C2 PFDoA	*70.3*		*10 - 130*

Lab Sample ID: LCSD 410-664516/4-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 664516

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	70.7		ng/L		88	70 - 140	1	30
Perfluoropentanoic acid (PFPeA)			40.0	37.2		ng/L		93	65 - 135	2	30
Perfluorohexanoic acid (PFHxA)			40.0	35.1		ng/L		88	70 - 145	3	30
Perfluoroheptanoic acid (PFHpA)			40.0	36.2		ng/L		91	70 - 150	0	30
Perfluorooctanoic acid (PFOA)			40.0	34.0		ng/L		85	70 - 150	1	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-664516/4-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 664516

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorononanoic acid (PFNA)			40.0	35.9		ng/L		90	70 - 150	5	30
Perfluorodecanoic acid (PFDA)			40.0	35.1		ng/L		88	70 - 140	1	30
Perfluoroundecanoic acid (PFUnA)			40.0	39.6		ng/L		99	70 - 145	4	30
Perfluorododecanoic acid (PFDoA)			40.0	39.1		ng/L		98	70 - 140	2	30
Perfluorotridecanoic acid (PFTrDA)			40.0	38.3		ng/L		96	65 - 140	17	30
Perfluorotetradecanoic acid (PFTeDA)			40.0	33.6		ng/L		84	60 - 140	10	30
Perfluorobutanesulfonic acid (PFBS)			35.5	32.1		ng/L		90	60 - 145	3	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	33.5		ng/L		89	65 - 140	2	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	27.0		ng/L		74	65 - 145	5	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	34.9		ng/L		91	70 - 150	0	30
Perfluorooctanesulfonic acid (PFOS)			37.2	33.5		ng/L		90	55 - 150	2	30
Perfluorononanesulfonic acid (PFNS)			38.5	31.3		ng/L		81	65 - 145	2	30
Perfluorodecanesulfonic acid (PFDS)			38.6	30.7		ng/L		80	60 - 145	11	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	24.9		ng/L		64	50 - 145	7	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			75.0	66.2		ng/L		88	70 - 145	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			76.2	71.0		ng/L		93	65 - 155	8	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			76.8	66.2		ng/L		86	60 - 150	9	30
Perfluorooctanesulfonamide (PFOSA)			40.0	38.2		ng/L		95	70 - 145	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			40.0	39.0		ng/L		98	60 - 150	0	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			40.0	38.3		ng/L		96	65 - 145	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	35.8		ng/L		89	50 - 140	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	35.4		ng/L		89	70 - 145	3	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			200	182		ng/L		91	70 - 145	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			200	178		ng/L		89	70 - 135	8	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			30.0	28.7		ng/L		96	70 - 140	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	34.4		ng/L		91	65 - 145	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			40.0	41.6		ng/L		104	55 - 140	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			40.0	36.6		ng/L		91	60 - 150	4	30

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LCSD 410-664516/4-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 664516

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	34.9		ng/L		87	50 - 150	8	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			37.4	32.9		ng/L		88	70 - 155	7	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			37.8	29.3		ng/L		78	55 - 160	12	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	29.5		ng/L		83	70 - 140	9	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	72.6		ng/L		91	65 - 130	4	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	135	*-	ng/L		68	70 - 135	5	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	139		ng/L		69	50 - 145	4	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*94.5*		*5 - 130*
13C5 PFPeA	*101*		*40 - 130*
13C5 PFHxA	*104*		*40 - 130*
13C4 PFHpA	*101*		*40 - 130*
13C8 PFOA	*94.9*		*40 - 130*
13C9 PFNA	*97.7*		*40 - 130*
13C6 PFDA	*93.8*		*40 - 130*
13C7 PFUnA	*93.9*		*30 - 130*
13C2 PFTeDA	*76.0*		*10 - 130*
13C3 PFBS	*87.8*		*40 - 135*
13C3 PFHxS	*99.0*		*40 - 130*
13C8 PFOS	*96.7*		*40 - 130*
13C8 FOSA	*87.2*		*40 - 130*
d3-NMeFOSAA	*80.8*		*40 - 170*
d5-NEtFOSAA	*89.7*		*25 - 135*
13C2 4:2 FTS	*99.7*		*40 - 200*
13C2 6:2 FTS	*98.4*		*40 - 200*
13C2 8:2 FTS	*97.2*		*40 - 300*
13C3 HFPO-DA	*103*		*40 - 130*
d7-N-MeFOSE-M	*62.2*		*10 - 130*
d9-N-EtFOSE-M	*58.8*		*10 - 130*
d5-NEtPFOSA	*71.7*		*10 - 130*
d3-NMePFOSA	*69.3*		*10 - 130*
13C2 PFDoA	*94.8*		*10 - 130*

Lab Sample ID: LLCS 410-664516/5-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664516

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.19		ng/L		90	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	3.62		ng/L		91	65 - 135
Perfluorohexanoic acid (PFHxA)			4.00	3.68		ng/L		92	70 - 145

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-664516/5-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664516

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	4.00	3.75		ng/L		94	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.58		ng/L		90	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.48		ng/L		87	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.47		ng/L		87	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.03		ng/L		101	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.74		ng/L		93	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.60		ng/L		90	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.42		ng/L		85	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.88		ng/L		81	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.23		ng/L		86	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.33		ng/L		91	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.55		ng/L		93	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.36		ng/L		90	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	2.84		ng/L		74	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.25		ng/L		84	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.58		ng/L		67	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.64		ng/L		102	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	6.75		ng/L		89	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.78		ng/L		101	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.07		ng/L		102	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.10		ng/L		103	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.69		ng/L		92	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.23		ng/L		81	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.21		ng/L		80	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	18.1		ng/L		91	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	20.7		ng/L		103	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.57		ng/L		86	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.45		ng/L		91	65 - 145
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.66		ng/L		92	55 - 140

Method: 1633A - Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A (Continued)

Lab Sample ID: LLCS 410-664516/5-A
Matrix: Water
Analysis Batch: 664775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664516

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.53		ng/L		88	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.77		ng/L		94	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	3.74	2.99		ng/L		80	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	3.78	2.89		ng/L		77	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	2.92		ng/L		82	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.42		ng/L		80	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	13.7	*-	ng/L		68	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	14.7		ng/L		74	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*93.3*		*5 - 130*
13C5 PFPeA	*99.8*		*40 - 130*
13C5 PFHxA	*95.8*		*40 - 130*
13C4 PFHpA	*96.0*		*40 - 130*
13C8 PFOA	*92.5*		*40 - 130*
13C9 PFNA	*90.7*		*40 - 130*
13C6 PFDA	*89.3*		*40 - 130*
13C7 PFUnA	*85.5*		*30 - 130*
13C2 PFTeDA	*78.0*		*10 - 130*
13C3 PFBS	*87.3*		*40 - 135*
13C3 PFHxS	*87.1*		*40 - 130*
13C8 PFOS	*89.2*		*40 - 130*
13C8 FOSA	*80.3*		*40 - 130*
d3-NMeFOSAA	*61.0*		*40 - 170*
d5-NEtFOSAA	*72.6*		*25 - 135*
13C2 4:2 FTS	*87.9*		*40 - 200*
13C2 6:2 FTS	*98.1*		*40 - 200*
13C2 8:2 FTS	*87.4*		*40 - 300*
13C3 HFPO-DA	*94.0*		*40 - 130*
d7-N-MeFOSE-M	*77.3*		*10 - 130*
d9-N-EtFOSE-M	*64.5*		*10 - 130*
d5-NEtPFOSA	*66.4*		*10 - 130*
d3-NMePFOSA	*62.0*		*10 - 130*
13C2 PFDoA	*89.9*		*10 - 130*

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

LCMS

Prep Batch: 664516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-4	DC290002-MW-9	Total/NA	Water	1633A	
410-227901-5	DC290002-MW-3	Total/NA	Water	1633A	
410-227901-6	DC290002-EB	Total/NA	Water	1633A	
410-227901-7	DC290002-FB	Total/NA	Water	1633A	
410-227901-8	DC290002-DUP	Total/NA	Water	1633A	
MB 410-664516/2-A	Method Blank	Total/NA	Water	1633A	
LCS 410-664516/3-A	Lab Control Sample	Total/NA	Water	1633A	
LCSD 410-664516/4-A	Lab Control Sample Dup	Total/NA	Water	1633A	
LLCS 410-664516/5-A	Lab Control Sample	Total/NA	Water	1633A	

Analysis Batch: 664775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-4	DC290002-MW-9	Total/NA	Water	1633A	664516
410-227901-5	DC290002-MW-3	Total/NA	Water	1633A	664516
410-227901-6	DC290002-EB	Total/NA	Water	1633A	664516
410-227901-7	DC290002-FB	Total/NA	Water	1633A	664516
410-227901-8	DC290002-DUP	Total/NA	Water	1633A	664516
MB 410-664516/2-A	Method Blank	Total/NA	Water	1633A	664516
LCS 410-664516/3-A	Lab Control Sample	Total/NA	Water	1633A	664516
LCSD 410-664516/4-A	Lab Control Sample Dup	Total/NA	Water	1633A	664516
LLCS 410-664516/5-A	Lab Control Sample	Total/NA	Water	1633A	664516

Prep Batch: 668147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-4	DC290002-MW-9	Post-Treatment	Water	TOP Post Prep	
410-227901-5	DC290002-MW-3	Post-Treatment	Water	TOP Post Prep	
MB 410-668147/1-A	Method Blank	Post-Treatment	Water	TOP Post Prep	
LCS 410-668147/2-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	
LCSD 410-668147/3-A	Lab Control Sample Dup	Post-Treatment	Water	TOP Post Prep	
LLCS 410-668147/4-A	Lab Control Sample	Post-Treatment	Water	TOP Post Prep	

Analysis Batch: 670196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-4	DC290002-MW-9	Post-Treatment	Water	1633 TOPS	668147
410-227901-5	DC290002-MW-3	Post-Treatment	Water	1633 TOPS	668147
MB 410-668147/1-A	Method Blank	Post-Treatment	Water	1633 TOPS	668147
LCS 410-668147/2-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	668147
LCSD 410-668147/3-A	Lab Control Sample Dup	Post-Treatment	Water	1633 TOPS	668147
LLCS 410-668147/4-A	Lab Control Sample	Post-Treatment	Water	1633 TOPS	668147

Lab Chronicle

Client: Hart & Hickman, PC
Job ID: 410-227901-2
Project/Site: Youngs Cleaners (DC290002)

Client Sample ID: DC290002-MW-9
Lab Sample ID: 410-227901-4
Date Collected: 06/16/25 12:05
Matrix: Water
Date Received: 06/18/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			668147	S7AC	ELLE	07/08/25 09:23
Post-Treatment	Analysis	1633 TOPS		1	670196	XBL5	ELLE	07/11/25 05:53
Total/NA	Prep	1633A			664516	MSH2	ELLE	06/29/25 10:14
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 15:45

Client Sample ID: DC290002-MW-3
Lab Sample ID: 410-227901-5
Date Collected: 06/16/25 13:55
Matrix: Water
Date Received: 06/18/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Post-Treatment	Prep	TOP Post Prep			668147	S7AC	ELLE	07/08/25 09:23
Post-Treatment	Analysis	1633 TOPS		1	670196	XBL5	ELLE	07/11/25 06:07
Total/NA	Prep	1633A			664516	MSH2	ELLE	06/29/25 10:14
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 15:58

Client Sample ID: DC290002-EB
Lab Sample ID: 410-227901-6
Date Collected: 06/16/25 13:40
Matrix: Water
Date Received: 06/18/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			664516	MSH2	ELLE	06/29/25 10:14
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 16:12

Client Sample ID: DC290002-FB
Lab Sample ID: 410-227901-7
Date Collected: 06/16/25 13:50
Matrix: Water
Date Received: 06/18/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			664516	MSH2	ELLE	06/29/25 10:14
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 16:25

Client Sample ID: DC290002-DUP
Lab Sample ID: 410-227901-8
Date Collected: 06/16/25 00:00
Matrix: Water
Date Received: 06/18/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633A			664516	MSH2	ELLE	06/29/25 10:14
Total/NA	Analysis	1633A		1	664775	XBL5	ELLE	06/30/25 16:39

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-227901-2
Project/Site: Youngs Cleaners (DC290002)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	09-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)
1633 TOPS	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633 TOPS	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633 TOPS	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633 TOPS	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633 TOPS	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633 TOPS	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633 TOPS	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633 TOPS	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633 TOPS	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633 TOPS	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633 TOPS	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
1633 TOPS	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
1633 TOPS	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
1633 TOPS	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633 TOPS	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
1633 TOPS	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)

Client: Hart & Hickman, PC
Job ID: 410-227901-2
Project/Site: Youngs Cleaners (DC290002)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633 TOPS	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
1633 TOPS	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
1633 TOPS	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
1633 TOPS	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
1633 TOPS	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
1633 TOPS	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
1633 TOPS	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)
1633A	1633A	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
1633A	1633A	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
1633A	1633A	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
1633A	1633A	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
1633A	1633A	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
1633A	1633A	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
1633A	1633A	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
1633A	1633A	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
1633A	1633A	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
1633A	1633A	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
1633A	1633A	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
1633A	1633A	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1633A	1633A	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
1633A	1633A	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
1633A	1633A	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
1633A	1633A	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
1633A	1633A	Water	Perfluorobutanesulfonic acid (PFBS)
1633A	1633A	Water	Perfluorobutanoic acid (PFBA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-227901-2
Project/Site: Youngs Cleaners (DC290002)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1633A	1633A	Water	Perfluorodecanesulfonic acid (PFDS)
1633A	1633A	Water	Perfluorodecanoic acid (PFDA)
1633A	1633A	Water	Perfluorododecanesulfonic acid (PFDoS)
1633A	1633A	Water	Perfluorododecanoic acid (PFDoA)
1633A	1633A	Water	Perfluoroheptanesulfonic acid (PFHpS)
1633A	1633A	Water	Perfluoroheptanoic acid (PFHpA)
1633A	1633A	Water	Perfluorohexanesulfonic acid (PFHxS)
1633A	1633A	Water	Perfluorohexanoic acid (PFHxA)
1633A	1633A	Water	Perfluorononanesulfonic acid (PFNS)
1633A	1633A	Water	Perfluorononanoic acid (PFNA)
1633A	1633A	Water	Perfluorooctanesulfonamide (PFOSA)
1633A	1633A	Water	Perfluorooctanesulfonic acid (PFOS)
1633A	1633A	Water	Perfluorooctanoic acid (PFOA)
1633A	1633A	Water	Perfluoropentanesulfonic acid (PFPeS)
1633A	1633A	Water	Perfluoropentanoic acid (PFPeA)
1633A	1633A	Water	Perfluorotetradecanoic acid (PFTeDA)
1633A	1633A	Water	Perfluorotridecanoic acid (PFTrDA)
1633A	1633A	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Method	Method Description	Protocol	Laboratory
1633 TOPS	Fluorinated Alkyl Substances	EPA	ELLE
1633A	Per- and Polyfluoroalkyl Substances by LC/MS/MS, 1633A	EPA	ELLE
1633A	Solid-Phase Extraction (SPE)	EPA	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-227901-4	DC290002-MW-9	Water	06/16/25 12:05	06/18/25 10:10	North Carolina
410-227901-5	DC290002-MW-3	Water	06/16/25 13:55	06/18/25 10:10	North Carolina
410-227901-6	DC290002-EB	Water	06/16/25 13:40	06/18/25 10:10	North Carolina
410-227901-7	DC290002-FB	Water	06/16/25 13:50	06/18/25 10:10	North Carolina
410-227901-8	DC290002-DUP	Water	06/16/25 00:00	06/18/25 10:10	North Carolina

nvironme

Chain of Custody Record

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410-227901 Chain of Custody

Client Contact: Sam Martin	Sampler: Gavin De Mars	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159587-44130.1
	Phone: (451) 595 - 2256	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			Preservation Codes: N - None
City: Charlotte	TAT Requested (days): Standard H&H (10-day)			
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4608(Tel)	PO #: DS0 PFAS			
Email: smartin@harthickman.com	WO #:			Other:
Project Name: Youngs Cleaners (DC290002)	Project #: 41025876			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - List of 40 based on EPA method	1633_Final, 1633_TOPS (Post)	537 Mod	Total Number of containers	Special Instructions/Note:
			Preservation Code:		N	N					
DC290002-VS	6/16/25	10:30	G	Water	N	N		✓	✓	3	*Please report J flags & report non-detects as < MDLs
DC290002-SPOT		10:40		Water			✓	✓	✓	3	
DC290002-DET		10:45		~~Water~~ Solid			✓	✓	✓	3	*EDD formats: H&H, ~~NCDSCA~~, NCDEQ
DC290002-MW-9		12:05		Water			✓	✓	✓	3	
DC290002-MW-3		13:55		Water			✓	✓	✓	3	*Samples -VS & -SPOT have high levels / are concentrated of solvent
DC290002-EB		13:40		Water			✓			2	
DC290002-FB		13:50		Water			✓			1	
DC290002 ~~blank~~-DUP		—		Water			✓			2	
				Water							
				Water							
				Water							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: GDeMars	Date/Time: 6/16/25 16:30	Company: H&H	Received by:	Date/Time: 6-17-25 11:30	Company:
Relinquished by:	Date/Time: 6/16/25 1700	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 6/18/25 10:40	Company: ECHET

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 22.2-22.0

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-227901-2

Login Number: 227901
List Number: 1
Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

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JOB DESCRIPTION

Youngs Cleaners (DC290002)

JOB NUMBER

410-227901-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

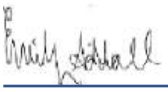
Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
12/15/2025 1:20:16 PM
Revision 2

Authorized for release by
Emily Siddall, Principal Project Manager
Emily.Siddall@et.eurofinsus.com
Designee for
David Barnhart, Senior Project Manager
David.Barnhart@et.eurofinsus.com
(717)656-2300

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-227901-1
Project/Site: Youngs Cleaners (DC290002)

Qualifiers

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-227901-1

REVISION

The report being provided is a revision of the original report sent on 7/25/2025. The report (revision 2) is being revised due to client requesting the removal of the following samples from this report: DC290002-DUP, DC290002-EB, DC290002-FB.

Report revision history
Revision 1 - 11/12/2025 - Reason - client requesting only the following samples be included in this report: DC290002-VS, DC290002-DET, DC290002-SPOT and associated lab QA/QC samples..

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 6/18/2025 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C.

PFAS
Method 537_IDA_TOPS - Post-Treatment: The sample injection standard peak areas in the following sample: DC290002-SPOT (410-227901-2) are outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Method 537_IDA_TOPS - Post-Treatment: The recovery for the labeled isotope(s) 13C7 PFUnA, 13C2-PFDoDA, d5-NEtFOSAA, M2-8:2 FTS and d5-NEtPFOSA in the following sample: DC290002-SPOT (410-227901-2) is outside the QC acceptance limits due to the matrix of the sample.

Method 537_IDA_TOPS - Post-Treatment: Isotope dilution analyte (IDA) 13C4 PFBA recoveries were outside QC acceptance criteria in sample DC290002-SPOT (410-227901-2). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method 537_IDA_TOPS - Post-Treatment: Target analyte(s) Perfluorodecanoic acid (PFDA) were detected in the method blank associated with the following samples: DC290002-VS (410-227901-1) and DC290002-SPOT (410-227901-2). The data is reported.

Method 537_IDA_TOPS - Post-Treatment: Target analyte(s) Perfluorodecanoic acid (PFDA) were detected in the method blank associated with the following sample: DC290002-DET (410-227901-3). The data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d3-NMePFOSA and d5-NEtPFOSA recoveries were outside QC acceptance criteria in in the method blank/laboratory control spike sample associated with the following sample: DC290002-VS (410-227901-1). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method PFC_IDA: The recovery for labeled isotope(s): 13C2-8:2 FTS, d3-NMePFOSA and d5-NEtPFOSA is outside the QC acceptance limits and biased high in the opening continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following sample: DC290002-VS (410-227901-1), the data is reported.

Method PFC_IDA: The recovery for the labeled isotope(s) 13C2-4:2 FTS, 13C2-6:2 FTS, 13C2-8:2 FTS, 13C3-HFPO-DA, 13C3-

PFBS, 13C4-PFBA, 13C4-PFHpA, 13C5-PFPeA, 13C8-PFOA, d3-NMeFOSAA, d5-NEtFOSAA, d7-N-MeFOSE-M, d9-N-EtFOSE-M, 13C3-PFHxS, 13C5-PFHxA, 13C6-PFDA, d3-NMePFOSA, d5-NEtPFOSA, 13C8-PFOSA, 13C9-PFNA and 13C-6:2 FTCA in the following sample: DC290002-SPOT (410-227901-2) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) was within QC acceptance limits. The results reported are from the in-hold re-extraction of the sample.

Method PFC_IDA: The recovery for the labeled isotope(s) 13C2-PFTeDA, 13C8-PFOS, 13C7-PFUnA and 13C2-PFDoA in the following sample: DC290002-SPOT (410-227901-2) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within of the required holding time and the recovery for labeled isotope(s) was outside QC acceptance limits. The results reported are from the in-hold re-extraction of the sample.

Method PFC_IDA: The recovery for the labeled isotope(s) d3-NMePFOSA and d5-NEtPFOSA in the method blank/laboratory control spike sample associated with the following sample: DC290002-SPOT (410-227901-2) is outside the QC acceptance limits. The following action was taken: This sample(s) was re-extracted within the required holding time and the recovery for the labeled isotope(s) in the re-extracted method blank/laboratory control spike sample(s) is outside the QC acceptance limits.

Method PFC_IDA: The recovery for the labeled isotope: 13C2-6:2 FTS in the following sample: DC290002-DET (410-227901-3) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method PFC_IDA: Isotope dilution analyte (IDA) d9-N-EtFOSE-M and d5-NEtPFOSA recoveries were outside QC acceptance criteria in sample DC290002-DET (410-227901-3). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

Client Sample ID: DC290002-VS — Lab Sample ID: 410-227901-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	240	J B cn	1000	150	ng/L	1		537 TOP	Post-Treatment
Perfluoro-3-methoxypropanoic acid (PFMPA)	530	J	1000	150	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC290002-SPOT — Lab Sample ID: 410-227901-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA) - DL	210000		23000	9300	ng/L	10		537 IDA	Total/NA
Perfluorodecanoic acid (PFDA) - DL	300000		9300	2300	ng/L	10		537 IDA	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	650000		9300	4200	ng/L	10		537 IDA	Total/NA
Perfluorooctanoic acid (PFOA) - DL	1800000		9300	2300	ng/L	10		537 IDA	Total/NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS) - RE	540	J	1400	460	ng/L	1		537 IDA	Total/NA
Perfluorododecanoic acid (PFDoA) - RE	120000		930	230	ng/L	1		537 IDA	Total/NA
Perfluoroheptanoic acid (PFHpA) - RE	110000		930	230	ng/L	1		537 IDA	Total/NA
Perfluorononanoic acid (PFNA) - RE	57000		930	230	ng/L	1		537 IDA	Total/NA
Perfluoropentanoic acid (PFPeA) - RE	82000		930	230	ng/L	1		537 IDA	Total/NA
Perfluorotetradecanoic acid (PFTeDA) - RE	42000		930	230	ng/L	1		537 IDA	Total/NA
Perfluorotridecanoic acid (PFTrDA) - RE	4000		930	230	ng/L	1		537 IDA	Total/NA
Perfluoroundecanoic acid (PFUnA) - RE	15000		930	230	ng/L	1		537 IDA	Total/NA
3-Perfluoropropylpropanoic acid (3:3 FTCA) - RE	200	J	930	140	ng/L	1		537 IDA	Total/NA
3-Perfluoroheptylpropanoic acid (7:3 FTCA) - RE	60000		930	140	ng/L	1		537 IDA	Total/NA
3-Perfluoropentylpropanoic acid (5:3 FTCA) - RE	1700		930	93	ng/L	1		537 IDA	Total/NA
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	550	J cn	1000	550	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC290002-DET — Lab Sample ID: 410-227901-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	1.9		0.59	0.20	ng/g	1	☼	537 IDA	Total/NA
Perfluorooctanoic acid (PFOA)	2.4		0.59	0.20	ng/g	1	☼	537 IDA	Total/NA
Perfluorodecanoic acid (PFDA)	1.6		0.59	0.20	ng/g	1	☼	537 IDA	Total/NA
Perfluorodecanoic acid (PFDA)	0.26	J B cn	0.60	0.20	ng/g	1	☼	537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

Client Sample ID: DC290002-VS
Date Collected: 06/16/25 10:30
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		06/29/25 11:03	07/09/25 00:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		06/29/25 11:03	07/09/25 00:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		06/29/25 11:03	07/09/25 00:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		06/29/25 11:03	07/09/25 00:19	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		06/29/25 11:03	07/09/25 00:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		06/29/25 11:03	07/09/25 00:19	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		06/29/25 11:03	07/09/25 00:19	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	100	ng/L		06/29/25 11:03	07/09/25 00:19	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	150	ng/L		06/29/25 11:03	07/09/25 00:19	1

Client Sample ID: DC290002-VS
Date Collected: 06/16/25 10:30
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	100	ng/L		06/29/25 11:03	07/09/25 00:19	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	150	ng/L		06/29/25 11:03	07/09/25 00:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	100	ng/L		06/29/25 11:03	07/09/25 00:19	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	100	ng/L		06/29/25 11:03	07/09/25 00:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	100	ng/L		06/29/25 11:03	07/09/25 00:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*97*		*19 - 191*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C2-6:2 FTS	*117*		*13 - 200*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C2-8:2 FTS	*127*	*cn*	*10 - 200*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C2-PFTeDA	*94*		*10 - 186*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C3-HFPO-DA	*86*		*10 - 140*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C3-PFBS	*111*		*24 - 176*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C4-PFBA	*97*		*26 - 162*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C4-PFHpA	*111*		*10 - 193*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C5-PFPeA	*100*		*15 - 162*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C8-PFOA	*89*		*27 - 160*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C8-PFOS	*104*		*22 - 172*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
d3-NMeFOSAA	*108*		*10 - 198*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
d5-NEtFOSAA	*104*		*10 - 200*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
d7-N-MeFOSE-M	*55*		*10 - 181*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
d9-N-EtFOSE-M	*52*		*10 - 182*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C3-PFHxS	*112*		*11 - 180*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C5-PFHxA	*107*		*10 - 176*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C6-PFDA	*100*		*19 - 168*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C7-PFUnA	*100*		*10 - 182*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
d3-NMePFOSA	*71*	*cn*	*10 - 137*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
d5-NEtPFOSA	*70*	*cn*	*10 - 130*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C8-PFOSA	*72*		*10 - 149*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C2-PFDoA	*109*		*10 - 183*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C9-PFNA	*96*		*10 - 198*	*06/29/25 11:03*	*07/09/25 00:19*	*1*
13C-6:2 FTCA	*94*		*10 - 185*	*06/29/25 11:03*	*07/09/25 00:19*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorodecanoic acid (PFDA)	**240**	**J B cn**	1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1

Client Sample ID: DC290002-VS
Date Collected: 06/16/25 10:30
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-1
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:31	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/11/25 07:30	07/17/25 14:31	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/11/25 07:30	07/17/25 14:31	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:31	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:31	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/17/25 14:31	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/11/25 07:30	07/17/25 14:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	**530**	**J**	1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:31	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:31	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/11/25 07:30	07/17/25 14:31	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:31	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/17/25 14:31	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+	1000	550	ng/L		07/11/25 07:30	07/17/25 14:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*103*		*10 - 168*	*07/11/25 07:30*	*07/17/25 14:31*	*1*
13C5 PFPeA	*121*		*15 - 189*	*07/11/25 07:30*	*07/17/25 14:31*	*1*
13C5 PFHxA	*68*		*20 - 165*	*07/11/25 07:30*	*07/17/25 14:31*	*1*

Client Sample ID: DC290002-VS
Lab Sample ID: 410-227901-1
Date Collected: 06/16/25 10:30
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	98		33 - 166	07/11/25 07:30	07/17/25 14:31	1
13C8 PFOA	90		40 - 154	07/11/25 07:30	07/17/25 14:31	1
13C9 PFNA	104		39 - 162	07/11/25 07:30	07/17/25 14:31	1
13C6 PFDA	100		41 - 153	07/11/25 07:30	07/17/25 14:31	1
13C7 PFUnA	98		35 - 161	07/11/25 07:30	07/17/25 14:31	1
13C2-PFDoDA	95		22 - 165	07/11/25 07:30	07/17/25 14:31	1
13C2 PFTeDA	92		17 - 156	07/11/25 07:30	07/17/25 14:31	1
13C3 PFBS	137		27 - 200	07/11/25 07:30	07/17/25 14:31	1
13C3 PFHxS	101		39 - 164	07/11/25 07:30	07/17/25 14:31	1
13C8 PFOS	104		44 - 153	07/11/25 07:30	07/17/25 14:31	1
13C8 FOSA	75		11 - 149	07/11/25 07:30	07/17/25 14:31	1
d3-NMeFOSAA				07/11/25 07:30	07/17/25 14:31	1
d5-NEtFOSAA	107		30 - 180	07/11/25 07:30	07/17/25 14:31	1
M2-4:2 FTS				07/11/25 07:30	07/17/25 14:31	1
M2-6:2 FTS	115		26 - 200	07/11/25 07:30	07/17/25 14:31	1
M2-8:2 FTS	146		27 - 200	07/11/25 07:30	07/17/25 14:31	1
13C3 HFPO-DA	91		11 - 166	07/11/25 07:30	07/17/25 14:31	1
d7-N-MeFOSE-M	74		10 - 154	07/11/25 07:30	07/17/25 14:31	1
d9-N-EtFOSE-M	74		10 - 146	07/11/25 07:30	07/17/25 14:31	1
d5-NEtPFOSA	72		10 - 130	07/11/25 07:30	07/17/25 14:31	1
d3-NMePFOSA	70		10 - 130	07/11/25 07:30	07/17/25 14:31	1
13C-6:2 FTCA	47		15 - 182	07/11/25 07:30	07/17/25 14:31	1

Client Sample ID: DC290002-SPOT
Lab Sample ID: 410-227901-2
Date Collected: 06/16/25 10:40
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 537 IDA - EPA 537 Isotope Dilution - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**210000**		23000	9300	ng/L		07/11/25 13:36	07/18/25 17:06	10
Perfluorodecanoic acid (PFDA)	**300000**		9300	2300	ng/L		07/11/25 13:36	07/18/25 17:06	10
Perfluorohexanoic acid (PFHxA)	**650000**		9300	4200	ng/L		07/11/25 13:36	07/18/25 17:06	10
Perfluorooctanoic acid (PFOA)	**1800000**		9300	2300	ng/L		07/11/25 13:36	07/18/25 17:06	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4-PFBA	52	cn	26 - 162	07/11/25 13:36	07/18/25 17:06	10
13C8-PFOA	42	cn	27 - 160	07/11/25 13:36	07/18/25 17:06	10
13C5-PFHxA	44	cn	10 - 176	07/11/25 13:36	07/18/25 17:06	10
13C6-PFDA	26	cn	19 - 168	07/11/25 13:36	07/18/25 17:06	10

Method: EPA 537 IDA - EPA 537 Isotope Dilution - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2300	1900	ng/L		07/11/25 13:36	07/17/25 22:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**540**	**J**	1400	460	ng/L		07/11/25 13:36	07/17/25 22:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1

Client Sample ID: DC290002-SPOT
Lab Sample ID: 410-227901-2
Date Collected: 06/16/25 10:40
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 537 IDA - EPA 537 Isotope Dilution - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	460	ng/L		07/11/25 13:36	07/17/25 22:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2300	460	ng/L		07/11/25 13:36	07/17/25 22:27	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	460	ng/L		07/11/25 13:36	07/17/25 22:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		930	280	ng/L		07/11/25 13:36	07/17/25 22:27	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	460	ng/L		07/11/25 13:36	07/17/25 22:27	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	460	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorobutanesulfonic acid (PFBS)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorodecanesulfonic acid (PFDS)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorododecanoic acid (PFDoA)	**120000**		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluoroheptanoic acid (PFHpA)	**110000**		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorohexanesulfonic acid (PFHxS)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorononanesulfonic acid (PFNS)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorononanoic acid (PFNA)	**57000**		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorooctanesulfonamide (PFOSA)	ND		930	320	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorooctanesulfonic acid (PFOS)	ND		930	460	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluoropentanesulfonic acid (PFPeS)	ND		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluoropentanoic acid (PFPeA)	**82000**		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorotetradecanoic acid (PFTeDA)	**42000**		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluorotridecanoic acid (PFTrDA)	**4000**		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluoroundecanoic acid (PFUnA)	**15000**		930	230	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		930	93	ng/L		07/11/25 13:36	07/17/25 22:27	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	**200**	**J**	930	140	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		930	93	ng/L		07/11/25 13:36	07/17/25 22:27	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	**60000**		930	140	ng/L		07/11/25 13:36	07/17/25 22:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		930	93	ng/L		07/11/25 13:36	07/17/25 22:27	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	**1700**		930	93	ng/L		07/11/25 13:36	07/17/25 22:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		930	93	ng/L		07/11/25 13:36	07/17/25 22:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*77*	*cn*	*19 - 191*	*07/11/25 13:36*	*07/17/25 22:27*	*1*

Client Sample ID: DC290002-SPOT
Lab Sample ID: 410-227901-2

Date Collected: 06/16/25 10:40
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 537 IDA - EPA 537 Isotope Dilution - RE (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-6:2 FTS	65	cn	13 - 200	07/11/25 13:36	07/17/25 22:27	1
13C2-8:2 FTS	100	cn	10 - 200	07/11/25 13:36	07/17/25 22:27	1
13C2-PFTeDA	6	*5- cn	10 - 186	07/11/25 13:36	07/17/25 22:27	1
13C3-HFPO-DA	46	cn	10 - 140	07/11/25 13:36	07/17/25 22:27	1
13C3-PFBS	41	cn	24 - 176	07/11/25 13:36	07/17/25 22:27	1
13C4-PFBA	54	cn	26 - 162	07/11/25 13:36	07/17/25 22:27	1
13C4-PFHpA	67	cn	10 - 193	07/11/25 13:36	07/17/25 22:27	1
13C5-PFPeA	52	cn	15 - 162	07/11/25 13:36	07/17/25 22:27	1
13C8-PFOA	42	cn	27 - 160	07/11/25 13:36	07/17/25 22:27	1
13C8-PFOS	20	*5- cn	22 - 172	07/11/25 13:36	07/17/25 22:27	1
d3-NMeFOSAA	54	cn	10 - 198	07/11/25 13:36	07/17/25 22:27	1
d5-NEtFOSAA	33	cn	10 - 200	07/11/25 13:36	07/17/25 22:27	1
d7-N-MeFOSE-M	43	cn	10 - 181	07/11/25 13:36	07/17/25 22:27	1
d9-N-EtFOSE-M	32	cn	10 - 182	07/11/25 13:36	07/17/25 22:27	1
13C3-PFHxS	56	cn	11 - 180	07/11/25 13:36	07/17/25 22:27	1
13C5-PFHxA	50	cn	10 - 176	07/11/25 13:36	07/17/25 22:27	1
13C6-PFDA	29	cn	19 - 168	07/11/25 13:36	07/17/25 22:27	1
13C7-PFUnA	6	*5- cn	10 - 182	07/11/25 13:36	07/17/25 22:27	1
d3-NMePFOSA	19	cn	10 - 137	07/11/25 13:36	07/17/25 22:27	1
d5-NEtPFOSA	13	cn	10 - 130	07/11/25 13:36	07/17/25 22:27	1
13C8-PFOSA	25	cn	10 - 149	07/11/25 13:36	07/17/25 22:27	1
13C2-PFDoA	7	*5- cn	10 - 183	07/11/25 13:36	07/17/25 22:27	1
13C9-PFNA	68	cn	10 - 198	07/11/25 13:36	07/17/25 22:27	1
13C-6:2 FTCA	73	cn	10 - 185	07/11/25 13:36	07/17/25 22:27	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	100	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorodecanoic acid (PFDA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	200	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	200	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	200	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	100	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		07/11/25 07:30	07/17/25 14:45	1

Client Sample ID: DC290002-SPOT
Lab Sample ID: 410-227901-2
Date Collected: 06/16/25 10:40
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**550**	**J cn**	1000	550	ng/L		07/11/25 07:30	07/17/25 14:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		07/11/25 07:30	07/17/25 14:45	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	200	ng/L		07/11/25 07:30	07/17/25 14:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	200	ng/L		07/11/25 07:30	07/17/25 14:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		07/11/25 07:30	07/17/25 14:45	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	200	ng/L		07/11/25 07:30	07/17/25 14:45	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	200	ng/L		07/11/25 07:30	07/17/25 14:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		07/11/25 07:30	07/17/25 14:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		07/11/25 07:30	07/17/25 14:45	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		07/11/25 07:30	07/17/25 14:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	150	ng/L		07/11/25 07:30	07/17/25 14:45	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		07/11/25 07:30	07/17/25 14:45	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		07/11/25 07:30	07/17/25 14:45	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	*+ cn	1000	550	ng/L		07/11/25 07:30	07/17/25 14:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*7*	**5- cn*	*10 - 168*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C5 PFPeA	*36*	*cn*	*15 - 189*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C5 PFHxA	*64*	*cn*	*20 - 165*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C4 PFHpA	*76*	*cn*	*33 - 166*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C8 PFOA	*59*	*cn*	*40 - 154*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C9 PFNA	*53*	*cn*	*39 - 162*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C6 PFDA	*96*	*cn*	*41 - 153*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C7 PFUnA	*363*	**5+ cn*	*35 - 161*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C2-PFDoDA	*198*	**5+ cn*	*22 - 165*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C2 PFTeDA	*60*	*cn*	*17 - 156*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C3 PFBS	*102*	*cn*	*27 - 200*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C3 PFHxS	*101*	*cn*	*39 - 164*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C8 PFOS	*89*	*cn*	*44 - 153*	*07/11/25 07:30*	*07/17/25 14:45*	*1*
13C8 FOSA	*135*	*cn*	*11 - 149*	*07/11/25 07:30*	*07/17/25 14:45*	*1*

Client Sample ID: DC290002-SPOT
Lab Sample ID: 410-227901-2
Date Collected: 06/16/25 10:40
Matrix: Water
Date Received: 06/18/25 10:10

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA		cn		07/11/25 07:30	07/17/25 14:45	1
d5-NEtFOSAA	216	*5+ cn	30 - 180	07/11/25 07:30	07/17/25 14:45	1
M2-4:2 FTS		cn		07/11/25 07:30	07/17/25 14:45	1
M2-6:2 FTS	177	cn	26 - 200	07/11/25 07:30	07/17/25 14:45	1
M2-8:2 FTS	237	*5+ cn	27 - 200	07/11/25 07:30	07/17/25 14:45	1
13C3 HFPO-DA	59	cn	11 - 166	07/11/25 07:30	07/17/25 14:45	1
d7-N-MeFOSE-M	38	cn	10 - 154	07/11/25 07:30	07/17/25 14:45	1
d9-N-EtFOSE-M	125	cn	10 - 146	07/11/25 07:30	07/17/25 14:45	1
d5-NEtPFOSA	243	*5+ cn	10 - 130	07/11/25 07:30	07/17/25 14:45	1
d3-NMePFOSA	50	cn	10 - 130	07/11/25 07:30	07/17/25 14:45	1
13C-6:2 FTCA	33	cn	15 - 182	07/11/25 07:30	07/17/25 14:45	1

Client Sample ID: DC290002-DET
Lab Sample ID: 410-227901-3
Date Collected: 06/16/25 10:45
Matrix: Solid
Date Received: 06/18/25 10:10
Percent Solids: 97.5

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.79	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluoropentanoic acid (PFPeA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorohexanoic acid (PFHxA)	**1.9**		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluoroheptanoic acid (PFHpA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorooctanoic acid (PFOA)	**2.4**		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorononanoic acid (PFNA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorodecanoic acid (PFDA)	**1.6**		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluoroundecanoic acid (PFUnA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorododecanoic acid (PFDoA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.39	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.59	0.50	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorononanesulfonic acid (PFNS)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0	0.59	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0	0.59	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.59	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.49	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.49	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

Client Sample ID: DC290002-DET
Date Collected: 06/16/25 10:45
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-3
Matrix: Solid
Percent Solids: 97.5

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.49	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.49	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	0.99	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		3.0	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.59	0.20	ng/g	☼	07/08/25 09:11	07/10/25 02:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4-PFBA	*75*		*25 - 147*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C5-PFPeA	*60*		*17 - 154*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C5-PFHxA	*67*		*20 - 150*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C4-PFHpA	*78*		*20 - 158*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C8-PFOA	*67*		*28 - 148*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C9-PFNA	*87*		*27 - 159*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C6-PFDA	*80*		*25 - 152*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C7-PFUnA	*28*		*12 - 169*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C2-PFDoA	*13*		*10 - 164*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C2-PFTeDA	*11*		*10 - 165*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C3-PFBS	*84*		*31 - 166*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C3-PFHxS	*83*		*26 - 155*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C8-PFOS	*83*		*34 - 153*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C8-PFOSA	*22*		*13 - 151*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
d3-NMeFOSAA	*31*		*10 - 172*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
d5-NEtFOSAA	*25*		*10 - 188*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C2-4:2 FTS	*131*		*10 - 190*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C2-6:2 FTS	*238*	**5+ cn*	*10 - 200*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C2-8:2 FTS	*171*		*10 - 200*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
13C3-HFPO-DA	*73*		*17 - 147*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
d7-N-MeFOSE-M	*17*		*10 - 177*	*07/08/25 09:11*	*07/10/25 02:39*	*1*
d9-N-EtFOSE-M	*6*	**5- cn*	*10 - 168*	*07/08/25 09:11*	*07/10/25 02:39*	*1*

Client Sample ID: DC290002-DET
Date Collected: 06/16/25 10:45
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-3
Matrix: Solid
Percent Solids: 97.5

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	8	*5- cn	10 - 149	07/08/25 09:11	07/10/25 02:39	1
d3-NMePFOSA	12		10 - 150	07/08/25 09:11	07/10/25 02:39	1
13C-6:2 FTCA	31		10 - 162	07/08/25 09:11	07/10/25 02:39	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.80	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluoropentanoic acid (PFPeA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorohexanoic acid (PFHxA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluoroheptanoic acid (PFHpA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorooctanoic acid (PFOA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorononanoic acid (PFNA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorodecanoic acid (PFDA)	**0.26**	**J B cn**	0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluoroundecanoic acid (PFUnA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorododecanoic acid (PFDoA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.40	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.60	0.51	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorononanesulfonic acid (PFNS)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0	0.60	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0	0.60	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.60	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		3.0	1.0	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1

Client Sample ID: DC290002-DET

Date Collected: 06/16/25 10:45
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-3

Matrix: Solid
Percent Solids: 97.5

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1
6:2 FTCA	ND		0.60	0.20	ng/g	☼	07/17/25 08:29	07/19/25 22:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97*		*25 - 147*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C5 PFPeA	*102*		*17 - 154*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C5 PFHxA	*69*		*20 - 150*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C4 PFHpA	*88*		*20 - 158*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C8 PFOA	*84*		*28 - 148*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C9 PFNA	*100*		*27 - 159*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C6 PFDA	*96*		*25 - 152*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C7 PFUnA	*34*		*12 - 169*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C2-PFDoDA	*17*		*10 - 164*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C2 PFTeDA	*13*		*10 - 165*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C3 PFBS	*122*		*31 - 166*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C3 PFHxS	*95*		*26 - 155*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C8 PFOS	*96*		*34 - 153*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C8 FOSA	*27*		*13 - 151*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
d5-NEtFOSAA	*34*		*10 - 188*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
M2-6:2 FTS	*216*	*5+	*10 - 200*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
M2-8:2 FTS	*200*		*10 - 200*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C3 HFPO-DA	*75*		*17 - 147*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
d7-N-MeFOSE-M	*14*		*10 - 177*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
d9-N-EtFOSE-M	*8*	*5-	*10 - 168*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
d5-NEtPFOSA	*11*		*10 - 149*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
d3-NMePFOSA	*10*		*10 - 150*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C-6:2 FTCA	*0*	*5-	*10 - 162*	*07/17/25 08:29*	*07/19/25 22:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*67*		*10 - 161*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C4 PFOA	*84*		*38 - 132*	*07/17/25 08:29*	*07/19/25 22:53*	*1*
13C2 PFUnA	*21*		*10 - 162*	*07/17/25 08:29*	*07/19/25 22:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**2.5**		1.0	1.0	%			06/30/25 10:00	1

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID			
MB 410-672633/2-B	Method Blank			

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFOA	PFUnA
Lab Sample ID	Client Sample ID	(10-161)	(38-132)	(10-162)
410-227901-3	DC290002-DET	67	84	21

Surrogate Legend

PFHxA = 13C2 PFHxA
PFOA = 13C4 PFOA
PFUnA = 13C2 PFUnA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-147)	PFPeA (17-154)	13C5PHA (20-150)	C4PFHA (20-158)	C8PFOA (28-148)	C9PFNA (27-159)	C6PFDA (25-152)	13C7PUA (12-169)
410-227901-3	DC290002-DET	75	60	67	78	67	87	80	28
LCS 410-668139/2-B	Lab Control Sample	73	70	65	78	70	85	77	78
MB 410-668139/1-B	Method Blank	79	77	73	89	76	90	82	89

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoDA (10-164)	PFTDA (10-165)	C3PFBS (31-166)	C3PFHS (26-155)	C8PFOS (34-153)	PFOSA (13-151)	d3NMFOS (10-172)	d5NEFOS (10-188)
410-227901-3	DC290002-DET	13	11	84	83	83	22	31	25
LCS 410-668139/2-B	Lab Control Sample	67	70	70	78	85	54	71	73
MB 410-668139/1-B	Method Blank	81	81	75	86	89	61	81	90

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (10-190)	M262FTS (10-200)	M282FTS (10-200)	HFPODA (17-147)	NMFM (10-177)	NEFM (10-168)	d5NPFSA (10-149)	d3NMFSA (10-150)
410-227901-3	DC290002-DET	131	238 *5+ cn	171	73	17	6 *5- cn	8 *5- cn	12
LCS 410-668139/2-B	Lab Control Sample	77	88	73	79	52	59	51	48
MB 410-668139/1-B	Method Blank	77	91	84	84	60	65	61	61

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	MFHEA (10-162)
410-227901-3	DC290002-DET	31
LCS 410-668139/2-B	Lab Control Sample	63
MB 410-668139/1-B	Method Blank	69

Surrogate Legend

PFBA = 13C4-PFBA
PFPeA = 13C5-PFPeA
13C5PHA = 13C5-PFHxA
C4PFHA = 13C4-PFHpA
C8PFOA = 13C8-PFOA
C9PFNA = 13C9-PFNA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
PFDoDA = 13C2-PFDoA
PFTDA = 13C2-PFTeDA
C3PFBS = 13C3-PFBS
C3PFHS = 13C3-PFHxS
C8PFOS = 13C8-PFOS
PFOSA = 13C8-PFOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
HFPODA = 13C3-HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227901-1
Project/Site: Youngs Cleaners (DC290002)

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (19-191)	M262FTS (13-200)	M282FTS (10-200)	PFTDA (10-186)	HFPODA (10-140)	C3PFBS (24-176)	PFBA (26-162)	C4PFHA (10-193)
410-227901-1	DC290002-VS	97	117	127 cn	94	86	111	97	111
410-227901-2 - RE	DC290002-SPOT	77 cn	65 cn	100 cn	6 *5- cn	46 cn	41 cn	54 cn	67 cn
410-227901-2 - DL	DC290002-SPOT							52 cn	
LCS 410-664522/2-B	Lab Control Sample	109	122	126	89	73	108	94	102
LCS 410-670119/2-B	Lab Control Sample	50	51	54	51	53	57	58	57
LCSD 410-664522/3-B	Lab Control Sample Dup	119	123	136	98	92	121	102	110
LCSD 410-670119/3-B	Lab Control Sample Dup	58	54	58	54	56	59	62	62
MB 410-664522/1-B	Method Blank	130	139	144	99	104	128	110	112
MB 410-670119/1-B	Method Blank	49	45	53	47	48	51	55	52

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFPeA (15-162)	C8PFOA (27-160)	C8PFOS (22-172)	d3NMFOS (10-198)	d5NEFOS (10-200)	NMFM (10-181)	NEFM (10-182)	C3PFHS (11-180)
410-227901-1	DC290002-VS	100	89	104	108	104	55	52	112
410-227901-2 - RE	DC290002-SPOT	52 cn	42 cn	20 *5- cn	54 cn	33 cn	43 cn	32 cn	56 cn
410-227901-2 - DL	DC290002-SPOT		42 cn						
LCS 410-664522/2-B	Lab Control Sample	99	84	100	101	109	22	22	104
LCS 410-670119/2-B	Lab Control Sample	58	52	58	54	50	19	20	66
LCSD 410-664522/3-B	Lab Control Sample Dup	102	91	112	113	121	26	25	112
LCSD 410-670119/3-B	Lab Control Sample Dup	59	55	63	58	51	23	24	72
MB 410-664522/1-B	Method Blank	113	98	117	120	125	15	15	117
MB 410-670119/1-B	Method Blank	53	48	55	48	45	15	16	59

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C5PHA (10-176)	C6PFDA (19-168)	13C7PUA (10-182)	d3NMFSA (10-137)	d5NPFSA (10-130)	PFOSA (10-149)	PFDoDA (10-183)	C9PFNA (10-198)
410-227901-1	DC290002-VS	107	100	100	71 cn	70 cn	72	109	96
410-227901-2 - RE	DC290002-SPOT	50 cn	29 cn	6 *5- cn	19 cn	13 cn	25 cn	7 *5- cn	68 cn
410-227901-2 - DL	DC290002-SPOT	44 cn	26 cn						
LCS 410-664522/2-B	Lab Control Sample	101	97	95	8 *5-	7 *5-	73	98	91
LCS 410-670119/2-B	Lab Control Sample	53	58	48	5 *5-	6 *5-	27	48	58
LCSD 410-664522/3-B	Lab Control Sample Dup	112	103	109	8 *5-	8 *5-	87	110	101
LCSD 410-670119/3-B	Lab Control Sample Dup	58	62	51	8 *5-	7 *5-	31	50	64
MB 410-664522/1-B	Method Blank	125	112	111	5 *5-	5 *5-	82	115	107
MB 410-670119/1-B	Method Blank	49	54	43	4 *5-	3 *5-	23	45	56

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	MFHEA (10-185)							
410-227901-1	DC290002-VS	94							
410-227901-2 - RE	DC290002-SPOT	73 cn							
410-227901-2 - DL	DC290002-SPOT								
LCS 410-664522/2-B	Lab Control Sample	88							
LCS 410-670119/2-B	Lab Control Sample	42							
LCSD 410-664522/3-B	Lab Control Sample Dup	103							
LCSD 410-670119/3-B	Lab Control Sample Dup	49							
MB 410-664522/1-B	Method Blank	109							
MB 410-670119/1-B	Method Blank	42							

Surrogate Legend

M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS

PFTDA = 13C2-PFTeDA
HFPODA = 13C3-HFPO-DA
C3PFBS = 13C3-PFBS
PFBA = 13C4-PFBA
C4PFHA = 13C4-PFHpA
PFPeA = 13C5-PFPeA
C8PFOA = 13C8-PFOA
C8PFOS = 13C8-PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
C3PFHS = 13C3-PFHxS
13C5PHA = 13C5-PFHxA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
PFOSA = 13C8-PFOSA
PFDoDA = 13C2-PFDoA
C9PFNA = 13C9-PFNA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(25-147)	(17-154)	(20-150)	(20-158)	(28-148)	(27-159)	(25-152)	(12-169)
LCS 410-672633/3-B	Lab Control Sample	93	96	98	97	88	94	99	96
LCSD 410-672633/4-B	Lab Control Sample Dup	89	94	98	97	89	95	95	96
MB 410-672633/2-B	Method Blank	80	92	94	97	82	99	94	99

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(10-164)	(10-165)	(31-166)	(26-155)	(34-153)	(13-151)	(10-188)	(10-200)
LCS 410-672633/3-B	Lab Control Sample	84	97	101	101	95	82	105	77
LCSD 410-672633/4-B	Lab Control Sample Dup	83	95	97	100	95	79	101	75
MB 410-672633/2-B	Method Blank	82	92	94	95	92	77	105	78

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA
Lab Sample ID	Client Sample ID	(10-200)	(17-147)	(10-177)	(10-168)	(10-149)	(10-150)	(10-162)
LCS 410-672633/3-B	Lab Control Sample	89	92	73	70	70	70	64
LCSD 410-672633/4-B	Lab Control Sample Dup	89	94	74	75	80	77	72
MB 410-672633/2-B	Method Blank	79	88	63	65	67	64	60

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227901-1
Project/Site: Youngs Cleaners (DC290002)

C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(25-147)	(17-154)	(20-150)	(20-158)	(28-148)	(27-159)	(25-152)	(12-169)
410-227901-3	DC290002-DET	97	102	69	88	84	100	96	34

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(10-164)	(10-165)	(31-166)	(26-155)	(34-153)	(13-151)	(10-188)	(10-200)
410-227901-3	DC290002-DET	17	13	122	95	96	27	34	216 *5+

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA	
Lab Sample ID	Client Sample ID	(10-200)	(17-147)	(10-177)	(10-168)	(10-149)	(10-150)	(10-162)	
410-227901-3	DC290002-DET	200	75	14	8 *5-	11	10	0 *5-	

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227901-1
Project/Site: Youngs Cleaners (DC290002)

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-168)	PFPeA (15-189)	13C5PHA (20-165)	C4PFHA (33-166)	C8PFOA (40-154)	C9PFNA (39-162)	C6PFDA (41-153)	13C7PUA (35-161)
LCS 410-669876/3-B	Lab Control Sample	104	101	99	104	93	105	106	111
LCSD 410-669876/4-B	Lab Control Sample Dup	104	104	102	104	93	106	106	102
MB 410-669876/2-B	Method Blank	101	97	94	98	93	106	99	104

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoDA (22-165)	PFTDA (17-156)	C3PFBS (27-200)	C3PFHS (39-164)	C8PFOS (44-153)	PFOSA (11-149)	d3NMFOS	d5NEFOS (30-180)
LCS 410-669876/3-B	Lab Control Sample	92	105	103	103	103	73		110
LCSD 410-669876/4-B	Lab Control Sample Dup	90	99	103	104	103	72		102
MB 410-669876/2-B	Method Blank	96	105	98	101	104	71		100

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS	M262FTS (26-200)	M282FTS (27-200)	HFPODA (11-166)	NMFM (10-154)	NEFM (10-146)	d5NPFSA (10-130)	d3NMFSA (10-130)
LCS 410-669876/3-B	Lab Control Sample		82	94	96	66	67	67	66
LCSD 410-669876/4-B	Lab Control Sample Dup		89	103	95	69	72	73	68
MB 410-669876/2-B	Method Blank		78	93	90	72	74	75	73

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	MFHEA (15-182)
LCS 410-669876/3-B	Lab Control Sample	56
LCSD 410-669876/4-B	Lab Control Sample Dup	56
MB 410-669876/2-B	Method Blank	56

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-227901-1
Project/Site: Youngs Cleaners (DC290002)

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (10-168)	PFPeA (15-189)	13C5PHA (20-165)	C4PFHA (33-166)	C8PFOA (40-154)	C9PFNA (39-162)	C6PFDA (41-153)	13C7PUA (35-161)
410-227901-1	DC290002-VS	103	121	68	98	90	104	100	98
410-227901-2	DC290002-SPOT	7 *5- cn	36 cn	64 cn	76 cn	59 cn	53 cn	96 cn	363 *5+ cn

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoDA (22-165)	PFTDA (17-156)	C3PFBS (27-200)	C3PFHS (39-164)	C8PFOS (44-153)	PFOSA (11-149)	d3NMFOS	d5NEFOS (30-180)
410-227901-1	DC290002-VS	95	92	137	101	104	75		107
410-227901-2	DC290002-SPOT	198 *5+ cn	60 cn	102 cn	101 cn	89 cn	135 cn	cn	216 *5+ cn

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS	M262FTS (26-200)	M282FTS (27-200)	HFPODA (11-166)	NMFM (10-154)	NEFM (10-146)	d5NPFSA (10-130)	d3NMFSA (10-130)
410-227901-1	DC290002-VS		115	146	91	74	74	72	70
410-227901-2	DC290002-SPOT	cn	177 cn	237 *5+ cn	59 cn	38 cn	125 cn	243 *5+ cn	50 cn

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	MFHEA (15-182)
410-227901-1	DC290002-VS	47
410-227901-2	DC290002-SPOT	33 cn

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-664522/1-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 664522

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-664522/1-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 664522

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	150	ng/L		06/29/25 11:03	07/08/25 20:42	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	150	ng/L		06/29/25 11:03	07/08/25 20:42	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	100	ng/L		06/29/25 11:03	07/08/25 20:42	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4-PFBA	*110*		*26 - 162*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C4-PFHpA	*112*		*10 - 193*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C5-PFPeA	*113*		*15 - 162*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C2-PFTeDA	*99*		*10 - 186*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C8-PFOA	*98*		*27 - 160*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C3-PFBS	*128*		*24 - 176*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C8-PFOS	*117*		*22 - 172*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d3-NMeFOSAA	*120*		*10 - 198*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C3-PFHxS	*117*		*11 - 180*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d5-NEtFOSAA	*125*		*10 - 200*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C2-4:2 FTS	*130*		*19 - 191*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C5-PFHxA	*125*		*10 - 176*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C2-6:2 FTS	*139*		*13 - 200*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C6-PFDA	*112*		*19 - 168*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C2-8:2 FTS	*144*		*10 - 200*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C7-PFUnA	*111*		*10 - 182*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C3-HFPO-DA	*104*		*10 - 140*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d7-N-MeFOSE-M	*15*		*10 - 181*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C8-PFOSA	*82*		*10 - 149*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d9-N-EtFOSE-M	*15*		*10 - 182*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C2-PFDoA	*115*		*10 - 183*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d5-NEtPFOSA	*5*	**5-*	*10 - 130*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C9-PFNA	*107*		*10 - 198*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
d3-NMePFOSA	*5*	**5-*	*10 - 137*	*06/29/25 11:03*	*07/08/25 20:42*	*1*
13C-6:2 FTCA	*109*		*10 - 185*	*06/29/25 11:03*	*07/08/25 20:42*	*1*

Lab Sample ID: LCS 410-664522/2-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	5680	4460		ng/L		78	56 - 130
Perfluorobutanoic acid (PFBA)	6400	5360		ng/L		84	54 - 144
Perfluorodecanoic acid (PFDA)	6400	5390		ng/L		84	61 - 135
Perfluorodecanesulfonic acid (PFDS)	6170	4790		ng/L		78	63 - 130
Perfluorododecanesulfonic acid (PFDoS)	6210	4660		ng/L		75	59 - 130

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-664522/2-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanoic acid (PFDoA)	6400	5590		ng/L		87	60 - 133
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	4870		ng/L		81	57 - 130
Perfluoroheptanesulfonic acid (PFHpS)	6090	4570		ng/L		75	51 - 132
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	4730		ng/L		78	58 - 136
Perfluoroheptanoic acid (PFHpA)	6400	5390		ng/L		84	54 - 133
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	5050		ng/L		82	57 - 134
Perfluorohexanesulfonic acid (PFHxS)	5840	4640		ng/L		80	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	5470		ng/L		85	55 - 132
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	6040		ng/L		94	61 - 134
Perfluorononanesulfonic acid (PFNS)	6160	5090		ng/L		83	65 - 136
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	5390		ng/L		84	59 - 137
Perfluorononanoic acid (PFNA)	6400	5120		ng/L		80	50 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	5400		ng/L		84	54 - 131
Perfluorooctanesulfonamide (PFOSA)	6400	5650		ng/L		88	62 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	5210		ng/L		81	53 - 130
Perfluorooctanesulfonic acid (PFOS)	5950	5200		ng/L		87	37 - 149
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	6050		ng/L		95	58 - 130
Perfluorooctanoic acid (PFOA)	6400	5840		ng/L		91	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	5480		ng/L		86	59 - 135
Perfluoropentanesulfonic acid (PFPeS)	6020	4700		ng/L		78	59 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	6930		ng/L		108	50 - 137
Perfluoropentanoic acid (PFPeA)	6400	5240		ng/L		82	59 - 133
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	5000		ng/L		83	55 - 130
Perfluorotetradecanoic acid (PFTeDA)	6400	5590		ng/L		87	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	5090		ng/L		80	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	5720		ng/L		89	58 - 133
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	5020		ng/L		84	59 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4850		ng/L		80	61 - 131
Perfluoro-3-methoxypropanoic acid (PFMPA)	6400	5380		ng/L		84	53 - 135

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-664522/2-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 664522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	5710	4500		ng/L		79	34 - 134
3-Perfluoropropylpropanoic acid (3:3 FTCA)	6400	4780		ng/L		75	10 - 155
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6400	4210		ng/L		66	46 - 133
3-Perfluoropentylpropanoic acid (5:3 FTCA)	6400	5210		ng/L		81	14 - 142
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	6400	5780		ng/L		90	10 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	6400	5130		ng/L		80	52 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4-PFBA	*94*		*26 - 162*
13C4-PFHpA	*102*		*10 - 193*
13C5-PFPeA	*99*		*15 - 162*
13C2-PFTeDA	*89*		*10 - 186*
13C8-PFOA	*84*		*27 - 160*
13C3-PFBS	*108*		*24 - 176*
13C8-PFOS	*100*		*22 - 172*
d3-NMeFOSAA	*101*		*10 - 198*
13C3-PFHxS	*104*		*11 - 180*
d5-NEtFOSAA	*109*		*10 - 200*
13C2-4:2 FTS	*109*		*19 - 191*
13C5-PFHxA	*101*		*10 - 176*
13C2-6:2 FTS	*122*		*13 - 200*
13C6-PFDA	*97*		*19 - 168*
13C2-8:2 FTS	*126*		*10 - 200*
13C7-PFUnA	*95*		*10 - 182*
13C3-HFPO-DA	*73*		*10 - 140*
d7-N-MeFOSE-M	*22*		*10 - 181*
13C8-PFOSA	*73*		*10 - 149*
d9-N-EtFOSE-M	*22*		*10 - 182*
13C2-PFDoA	*98*		*10 - 183*
d5-NEtPFOSA	*7*	*5-	*10 - 130*
13C9-PFNA	*91*		*10 - 198*
d3-NMePFOSA	*8*	*5-	*10 - 137*
13C-6:2 FTCA	*88*		*10 - 185*

Lab Sample ID: LCSD 410-664522/3-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 664522

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanesulfonic acid (PFBS)	5680	4470		ng/L		79	56 - 130	0	30
Perfluorobutanoic acid (PFBA)	6400	5430		ng/L		85	54 - 144	1	30
Perfluorodecanoic acid (PFDA)	6400	5520		ng/L		86	61 - 135	2	30
Perfluorodecanesulfonic acid (PFDS)	6170	4890		ng/L		79	63 - 130	2	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-664522/3-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 664522

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorododecanesulfonic acid (PFDoS)	6210	4510		ng/L		73	59 - 130	3	30
Perfluorododecanoic acid (PFDoA)	6400	5530		ng/L		86	60 - 133	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5040		ng/L		84	57 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	6090	4820		ng/L		79	51 - 132	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	5400		ng/L		89	58 - 136	13	30
Perfluoroheptanoic acid (PFHpA)	6400	5520		ng/L		86	54 - 133	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	5270		ng/L		86	57 - 134	4	30
Perfluorohexanesulfonic acid (PFHxS)	5840	4670		ng/L		80	56 - 130	1	30
Perfluorohexanoic acid (PFHxA)	6400	5400		ng/L		84	55 - 132	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	5670		ng/L		89	61 - 134	6	30
Perfluorononanesulfonic acid (PFNS)	6160	4950		ng/L		80	65 - 136	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	4900		ng/L		77	59 - 137	9	30
Perfluorononanoic acid (PFNA)	6400	4940		ng/L		77	50 - 140	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	5500		ng/L		86	54 - 131	2	30
Perfluorooctanesulfonamide (PFOSA)	6400	5530		ng/L		86	62 - 136	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	5260		ng/L		82	53 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	5950	5170		ng/L		87	37 - 149	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	6230		ng/L		97	58 - 130	3	30
Perfluorooctanoic acid (PFOA)	6400	5690		ng/L		89	60 - 130	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	5920		ng/L		92	59 - 135	8	30
Perfluoropentanesulfonic acid (PFPeS)	6020	4480		ng/L		75	59 - 130	5	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	7310		ng/L		114	50 - 137	5	30
Perfluoropentanoic acid (PFPeA)	6400	5110		ng/L		80	59 - 133	2	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	4960		ng/L		82	55 - 130	1	30
Perfluorotetradecanoic acid (PFTeDA)	6400	5390		ng/L		84	62 - 130	4	30
Perfluorotridecanoic acid (PFTrDA)	6400	5060		ng/L		79	53 - 133	1	30
Perfluoroundecanoic acid (PFUnA)	6400	6150		ng/L		96	58 - 133	7	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	4930		ng/L		82	59 - 130	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4650		ng/L		77	61 - 131	4	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-664522/3-B
Matrix: Water
Analysis Batch: 668235

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 664522

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5370		ng/L		84	53 - 135	0	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4240		ng/L		74	34 - 134	6	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5730		ng/L		89	10 - 155	18	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	3960		ng/L		62	46 - 133	6	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	5930		ng/L		93	14 - 142	13	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	5540		ng/L		87	10 - 150	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	4960		ng/L		78	52 - 130	3	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4-PFBA	*102*		*26 - 162*
13C4-PFHpA	*110*		*10 - 193*
13C5-PFPeA	*102*		*15 - 162*
13C2-PFTeDA	*98*		*10 - 186*
13C8-PFOA	*91*		*27 - 160*
13C3-PFBS	*121*		*24 - 176*
13C8-PFOS	*112*		*22 - 172*
d3-NMeFOSAA	*113*		*10 - 198*
13C3-PFHxS	*112*		*11 - 180*
d5-NEtFOSAA	*121*		*10 - 200*
13C2-4:2 FTS	*119*		*19 - 191*
13C5-PFHxA	*112*		*10 - 176*
13C2-6:2 FTS	*123*		*13 - 200*
13C6-PFDA	*103*		*19 - 168*
13C2-8:2 FTS	*136*		*10 - 200*
13C7-PFUnA	*109*		*10 - 182*
13C3-HFPO-DA	*92*		*10 - 140*
d7-N-MeFOSE-M	*26*		*10 - 181*
13C8-PFOSA	*87*		*10 - 149*
d9-N-EtFOSE-M	*25*		*10 - 182*
13C2-PFDoA	*110*		*10 - 183*
d5-NEtPFOSA	*8*	*5-*	*10 - 130*
13C9-PFNA	*101*		*10 - 198*
d3-NMePFOSA	*8*	*5-*	*10 - 137*
13C-6:2 FTCA	*103*		*10 - 185*

Lab Sample ID: MB 410-668139/1-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.40	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorobutanoic acid (PFBA)	ND		2.0	0.80	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorodecanoic acid (PFDA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-668139/1-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorododecanoic acid (PFDoA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0	0.60	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0	0.60	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoroheptanoic acid (PFHpA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.60	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorohexanoic acid (PFHxA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorononanesulfonic acid (PFNS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorononanoic acid (PFNA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.60	0.51	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorooctanoic acid (PFOA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0	1.0	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoropentanoic acid (PFPeA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		3.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoroundecanoic acid (PFUnA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-668139/1-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 668139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.60	0.20	ng/g		07/08/25 09:11	07/10/25 02:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4-PFBA	*79*		*25 - 147*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C4-PFHpA	*89*		*20 - 158*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C5-PFPeA	*77*		*17 - 154*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-PFTeDA	*81*		*10 - 165*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C8-PFOA	*76*		*28 - 148*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C3-PFBS	*75*		*31 - 166*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C8-PFOS	*89*		*34 - 153*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d3-NMeFOSAA	*81*		*10 - 172*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C3-PFHxS	*86*		*26 - 155*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d5-NEtFOSAA	*90*		*10 - 188*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-4:2 FTS	*77*		*10 - 190*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C5-PFHxA	*73*		*20 - 150*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-6:2 FTS	*91*		*10 - 200*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C6-PFDA	*82*		*25 - 152*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-8:2 FTS	*84*		*10 - 200*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C7-PFUnA	*89*		*12 - 169*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C3-HFPO-DA	*84*		*17 - 147*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d7-N-MeFOSE-M	*60*		*10 - 177*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C8-PFOSA	*61*		*13 - 151*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d9-N-EtFOSE-M	*65*		*10 - 168*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C2-PFDoA	*81*		*10 - 164*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d5-NEtPFOSA	*61*		*10 - 149*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C9-PFNA	*90*		*27 - 159*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
d3-NMePFOSA	*61*		*10 - 150*	*07/08/25 09:11*	*07/10/25 02:12*	*1*
13C-6:2 FTCA	*69*		*10 - 162*	*07/08/25 09:11*	*07/10/25 02:12*	*1*

Lab Sample ID: LCS 410-668139/2-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	22.2	21.8		ng/g		98	56 - 130
Perfluorobutanoic acid (PFBA)	25.0	27.6		ng/g		111	60 - 130
Perfluorodecanoic acid (PFDA)	25.0	22.8		ng/g		91	57 - 130
Perfluorodecanesulfonic acid (PFDS)	24.1	24.8		ng/g		103	50 - 134
Perfluorododecanesulfonic acid (PFDoS)	24.3	26.0		ng/g		107	43 - 132
Perfluorododecanoic acid (PFDoA)	25.0	26.3		ng/g		105	58 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	23.5	25.8		ng/g		110	57 - 130

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-668139/2-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	23.9	26.1		ng/g		109	58 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	23.8	25.5		ng/g		107	59 - 130
Perfluoroheptanoic acid (PFHpA)	25.0	23.4		ng/g		94	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	24.0	25.8		ng/g		108	56 - 130
Perfluorohexanesulfonic acid (PFHxS)	22.8	21.1		ng/g		93	57 - 130
Perfluorohexanoic acid (PFHxA)	25.0	24.2		ng/g		97	56 - 130
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	27.1		ng/g		108	64 - 130
Perfluorononanesulfonic acid (PFNS)	24.1	24.7		ng/g		103	56 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	26.0		ng/g		104	64 - 130
Perfluorononanoic acid (PFNA)	25.0	22.1		ng/g		88	57 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	21.9		ng/g		88	56 - 130
Perfluorooctanesulfonamide (PFOSA)	25.0	28.5		ng/g		114	64 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	23.3		ng/g		93	55 - 130
Perfluorooctanesulfonic acid (PFOS)	23.3	22.5		ng/g		97	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	25.0	27.9		ng/g		112	59 - 130
Perfluorooctanoic acid (PFOA)	25.0	25.1		ng/g		100	56 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	25.0	26.0		ng/g		104	62 - 130
Perfluoropentanesulfonic acid (PFPeS)	23.5	27.6		ng/g		117	54 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	25.0	19.5		ng/g		78	48 - 130
Perfluoropentanoic acid (PFPeA)	25.0	28.7		ng/g		115	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	23.7	22.0		ng/g		93	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	25.0	25.7		ng/g		103	57 - 130
Perfluorotridecanoic acid (PFTrDA)	25.0	25.6		ng/g		103	53 - 135
Perfluoroundecanoic acid (PFUnA)	25.0	22.3		ng/g		89	58 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	23.4	19.4		ng/g		83	56 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	23.6	20.6		ng/g		87	50 - 135
Perfluoro-3-methoxypropanoic acid (PFMPA)	25.0	24.3		ng/g		97	53 - 134
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	22.3	22.7		ng/g		102	41 - 132
3-Perfluoropropylpropanoic acid (3:3 FTCA)	25.0	17.3		ng/g		69	10 - 158

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-668139/2-B
Matrix: Solid
Analysis Batch: 668782

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 668139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	25.0	23.8		ng/g		95	41 - 134
3-Perfluoropentylpropanoic acid (5:3 FTCA)	25.0	17.2		ng/g		69	10 - 143
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	25.0	22.9		ng/g		92	17 - 152
Perfluoro-4-methoxybutanoic acid (PFMBA)	25.0	23.2		ng/g		93	48 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4-PFBA	*73*		*25 - 147*
13C4-PFHpA	*78*		*20 - 158*
13C5-PFPeA	*70*		*17 - 154*
13C2-PFTeDA	*70*		*10 - 165*
13C8-PFOA	*70*		*28 - 148*
13C3-PFBS	*70*		*31 - 166*
13C8-PFOS	*85*		*34 - 153*
d3-NMeFOSAA	*71*		*10 - 172*
13C3-PFHxS	*78*		*26 - 155*
d5-NEtFOSAA	*73*		*10 - 188*
13C2-4:2 FTS	*77*		*10 - 190*
13C5-PFHxA	*65*		*20 - 150*
13C2-6:2 FTS	*88*		*10 - 200*
13C6-PFDA	*77*		*25 - 152*
13C2-8:2 FTS	*73*		*10 - 200*
13C7-PFUnA	*78*		*12 - 169*
13C3-HFPO-DA	*79*		*17 - 147*
d7-N-MeFOSE-M	*52*		*10 - 177*
13C8-PFOSA	*54*		*13 - 151*
d9-N-EtFOSE-M	*59*		*10 - 168*
13C2-PFDoA	*67*		*10 - 164*
d5-NEtPFOSA	*51*		*10 - 149*
13C9-PFNA	*85*		*27 - 159*
d3-NMePFOSA	*48*		*10 - 150*
13C-6:2 FTCA	*63*		*10 - 162*

Lab Sample ID: MB 410-670119/1-B
Matrix: Water
Analysis Batch: 672772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670119

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-670119/1-B
Matrix: Water
Analysis Batch: 672772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670119

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		07/11/25 13:36	07/17/25 21:05	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		07/11/25 13:36	07/17/25 21:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		07/11/25 13:36	07/17/25 21:05	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	123	J	1000	100	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	110	J	1000	100	ng/L		07/11/25 13:36	07/17/25 21:05	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	150	ng/L		07/11/25 13:36	07/17/25 21:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	176	J	1000	100	ng/L		07/11/25 13:36	07/17/25 21:05	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	100	ng/L		07/11/25 13:36	07/17/25 21:05	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	150	ng/L		07/11/25 13:36	07/17/25 21:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	100	ng/L		07/11/25 13:36	07/17/25 21:05	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4-PFBA	55		26 - 162	07/11/25 13:36	07/17/25 21:05	1
13C4-PFHpA	52		10 - 193	07/11/25 13:36	07/17/25 21:05	1
13C5-PFPeA	53		15 - 162	07/11/25 13:36	07/17/25 21:05	1
13C2-PFTeDA	47		10 - 186	07/11/25 13:36	07/17/25 21:05	1
13C8-PFOA	48		27 - 160	07/11/25 13:36	07/17/25 21:05	1
13C3-PFBS	51		24 - 176	07/11/25 13:36	07/17/25 21:05	1
13C8-PFOS	55		22 - 172	07/11/25 13:36	07/17/25 21:05	1
d3-NMeFOSAA	48		10 - 198	07/11/25 13:36	07/17/25 21:05	1
13C3-PFHxS	59		11 - 180	07/11/25 13:36	07/17/25 21:05	1
d5-NEtFOSAA	45		10 - 200	07/11/25 13:36	07/17/25 21:05	1
13C2-4:2 FTS	49		19 - 191	07/11/25 13:36	07/17/25 21:05	1
13C5-PFHxA	49		10 - 176	07/11/25 13:36	07/17/25 21:05	1
13C2-6:2 FTS	45		13 - 200	07/11/25 13:36	07/17/25 21:05	1
13C6-PFDA	54		19 - 168	07/11/25 13:36	07/17/25 21:05	1
13C2-8:2 FTS	53		10 - 200	07/11/25 13:36	07/17/25 21:05	1
13C7-PFUnA	43		10 - 182	07/11/25 13:36	07/17/25 21:05	1
13C3-HFPO-DA	48		10 - 140	07/11/25 13:36	07/17/25 21:05	1
d7-N-MeFOSE-M	15		10 - 181	07/11/25 13:36	07/17/25 21:05	1
13C8-PFOSA	23		10 - 149	07/11/25 13:36	07/17/25 21:05	1
d9-N-EtFOSE-M	16		10 - 182	07/11/25 13:36	07/17/25 21:05	1
13C2-PFDoA	45		10 - 183	07/11/25 13:36	07/17/25 21:05	1
d5-NEtPFOSA	3	*5-	10 - 130	07/11/25 13:36	07/17/25 21:05	1
13C9-PFNA	56		10 - 198	07/11/25 13:36	07/17/25 21:05	1
d3-NMePFOSA	4	*5-	10 - 137	07/11/25 13:36	07/17/25 21:05	1
13C-6:2 FTCA	42		10 - 185	07/11/25 13:36	07/17/25 21:05	1

Lab Sample ID: LCS 410-670119/2-B
Matrix: Water
Analysis Batch: 672772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	5680	4940		ng/L		87	56 - 130
Perfluorobutanoic acid (PFBA)	6400	5880		ng/L		92	54 - 144
Perfluorodecanoic acid (PFDA)	6400	5750		ng/L		90	61 - 135
Perfluorodecanesulfonic acid (PFDS)	6170	5040		ng/L		82	63 - 130
Perfluorododecanesulfonic acid (PFDoS)	6210	5000		ng/L		80	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	6050		ng/L		95	60 - 133
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5980		ng/L		100	57 - 130
Perfluoroheptanesulfonic acid (PFHpS)	6090	4640		ng/L		76	51 - 132
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	6040		ng/L		99	58 - 136
Perfluoroheptanoic acid (PFHpA)	6400	6060		ng/L		95	54 - 133
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	5570		ng/L		91	57 - 134
Perfluorohexanesulfonic acid (PFHxS)	5840	4510		ng/L		77	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	6040		ng/L		94	55 - 132

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-670119/2-B
Matrix: Water
Analysis Batch: 672772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	6750		ng/L		106	61 - 134
Perfluorononanesulfonic acid (PFNS)	6160	4790		ng/L		78	65 - 136
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	5510		ng/L		86	59 - 137
Perfluorononanoic acid (PFNA)	6400	5580		ng/L		87	50 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	5100		ng/L		80	54 - 131
Perfluorooctanesulfonamide (PFOSA)	6400	6340		ng/L		99	62 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	5580		ng/L		87	53 - 130
Perfluorooctanesulfonic acid (PFOS)	5950	5120		ng/L		86	37 - 149
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	5240		ng/L		82	58 - 130
Perfluorooctanoic acid (PFOA)	6400	6340		ng/L		99	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	5980		ng/L		93	59 - 135
Perfluoropentanesulfonic acid (PFPeS)	6020	5270		ng/L		88	59 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	5090		ng/L		80	50 - 137
Perfluoropentanoic acid (PFPeA)	6400	5550		ng/L		87	59 - 133
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	5510		ng/L		91	55 - 130
Perfluorotetradecanoic acid (PFTeDA)	6400	5580		ng/L		87	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	5910		ng/L		92	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	6320		ng/L		99	58 - 133
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	5140		ng/L		86	59 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	5030		ng/L		83	61 - 131
Perfluoro-3-methoxypropanoic acid (PFMPA)	6400	5730		ng/L		90	53 - 135
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	5710	5100		ng/L		89	34 - 134
3-Perfluoropropylpropanoic acid (3:3 FTCA)	6400	4140		ng/L		65	10 - 155
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6400	5440		ng/L		85	46 - 133
3-Perfluoropentylpropanoic acid (5:3 FTCA)	6400	3420		ng/L		53	14 - 142
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	6400	1840		ng/L		29	10 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	6400	5740		ng/L		90	52 - 130

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4-PFBA	58		26 - 162
13C4-PFHpA	57		10 - 193
13C5-PFPeA	58		15 - 162
13C2-PFTeDA	51		10 - 186
13C8-PFOA	52		27 - 160
13C3-PFBS	57		24 - 176
13C8-PFOS	58		22 - 172
d3-NMeFOSAA	54		10 - 198
13C3-PFHxS	66		11 - 180
d5-NEtFOSAA	50		10 - 200
13C2-4:2 FTS	50		19 - 191
13C5-PFHxA	53		10 - 176
13C2-6:2 FTS	51		13 - 200
13C6-PFDA	58		19 - 168
13C2-8:2 FTS	54		10 - 200
13C7-PFUnA	48		10 - 182
13C3-HFPO-DA	53		10 - 140
d7-N-MeFOSE-M	19		10 - 181
13C8-PFOSA	27		10 - 149
d9-N-EtFOSE-M	20		10 - 182
13C2-PFDoA	48		10 - 183
d5-NEtPFOSA	6	*5-	10 - 130
13C9-PFNA	58		10 - 198
d3-NMePFOSA	5	*5-	10 - 137
13C-6:2 FTCA	42		10 - 185

Lab Sample ID: LCSD 410-670119/3-B
Matrix: Water
Analysis Batch: 672772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670119

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanesulfonic acid (PFBS)			5680	5410		ng/L		95	56 - 130	9	30
Perfluorobutanoic acid (PFBA)			6400	6230		ng/L		97	54 - 144	6	30
Perfluorodecanoic acid (PFDA)			6400	6020		ng/L		94	61 - 135	5	30
Perfluorodecanesulfonic acid (PFDS)			6170	5560		ng/L		90	63 - 130	10	30
Perfluorododecanesulfonic acid (PFDoS)			6210	5580		ng/L		90	59 - 130	11	30
Perfluorododecanoic acid (PFDoA)			6400	6760		ng/L		106	60 - 133	11	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			6000	5920		ng/L		99	57 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)			6090	4990		ng/L		82	51 - 132	7	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			6090	6550		ng/L		108	58 - 136	8	30
Perfluoroheptanoic acid (PFHpA)			6400	6640		ng/L		104	54 - 133	9	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			6140	5750		ng/L		94	57 - 134	3	30
Perfluorohexanesulfonic acid (PFHxS)			5840	4780		ng/L		82	56 - 130	6	30
Perfluorohexanoic acid (PFHxA)			6400	6500		ng/L		102	55 - 132	7	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-670119/3-B
Matrix: Water
Analysis Batch: 672772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670119

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-methylperfluorooctane sulfonamide (NMeFOSA)			6400	6160		ng/L		96	61 - 134	9	30
Perfluorononanesulfonic acid (PFNS)			6160	5220		ng/L		85	65 - 136	9	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			6400	6160		ng/L		96	59 - 137	11	30
Perfluorononanoic acid (PFNA)			6400	5840		ng/L		91	50 - 140	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			6400	5250		ng/L		82	54 - 131	3	30
Perfluorooctanesulfonamide (PFOSA)			6400	7000		ng/L		109	62 - 136	10	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			6400	6360		ng/L		99	53 - 130	13	30
Perfluorooctanesulfonic acid (PFOS)			5950	5440		ng/L		91	37 - 149	6	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			6400	6090		ng/L		95	58 - 130	15	30
Perfluorooctanoic acid (PFOA)			6400	6720		ng/L		105	60 - 130	6	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			6400	6080		ng/L		95	59 - 135	2	30
Perfluoropentanesulfonic acid (PFPeS)			6020	5830		ng/L		97	59 - 130	10	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			6400	5930		ng/L		93	50 - 137	15	30
Perfluoropentanoic acid (PFPeA)			6400	6130		ng/L		96	59 - 133	10	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)			6050	5860		ng/L		97	55 - 130	6	30
Perfluorotetradecanoic acid (PFTeDA)			6400	6160		ng/L		96	62 - 130	10	30
Perfluorotridecanoic acid (PFTrDA)			6400	6990		ng/L		109	53 - 133	17	30
Perfluoroundecanoic acid (PFUnA)			6400	6990		ng/L		109	58 - 133	10	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	5520		ng/L		92	59 - 130	7	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	5390		ng/L		89	61 - 131	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	6100		ng/L		95	53 - 135	6	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	5460		ng/L		96	34 - 134	7	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	5060		ng/L		79	10 - 155	20	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	6000		ng/L		94	46 - 133	10	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	3720		ng/L		58	14 - 142	9	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	2030		ng/L		32	10 - 150	10	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	6190		ng/L		97	52 - 130	7	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4-PFBA	62		26 - 162
13C4-PFHpA	62		10 - 193
13C5-PFPeA	59		15 - 162
13C2-PFTeDA	54		10 - 186
13C8-PFOA	55		27 - 160
13C3-PFBS	59		24 - 176
13C8-PFOS	63		22 - 172
d3-NMeFOSAA	58		10 - 198
13C3-PFHxS	72		11 - 180
d5-NEtFOSAA	51		10 - 200
13C2-4:2 FTS	58		19 - 191
13C5-PFHxA	58		10 - 176
13C2-6:2 FTS	54		13 - 200
13C6-PFDA	62		19 - 168
13C2-8:2 FTS	58		10 - 200
13C7-PFUnA	51		10 - 182
13C3-HFPO-DA	56		10 - 140
d7-N-MeFOSE-M	23		10 - 181
13C8-PFOSA	31		10 - 149
d9-N-EtFOSE-M	24		10 - 182
13C2-PFDoA	50		10 - 183
d5-NEtPFOSA	7	*5-	10 - 130
13C9-PFNA	64		10 - 198
d3-NMePFOSA	8	*5-	10 - 137
13C-6:2 FTCA	49		10 - 185

Method: 537 TOP - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-669876/2-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoropentanoic acid (PFPeA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorooctanoic acid (PFOA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorononanoic acid (PFNA)	ND		1000	100	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorodecanoic acid (PFDA)	270	J	1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorododecanoic acid (PFDoA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	100	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-669876/2-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		07/11/25 07:30	07/18/25 12:15	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	200	ng/L		07/11/25 07:30	07/18/25 12:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		07/11/25 07:30	07/18/25 12:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	150	ng/L		07/11/25 07:30	07/18/25 12:15	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		07/11/25 07:30	07/18/25 12:15	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		07/11/25 07:30	07/18/25 12:15	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*10 - 168*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C5 PFPeA	*97*		*15 - 189*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C5 PFHxA	*94*		*20 - 165*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C4 PFHpA	*98*		*33 - 166*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C8 PFOA	*93*		*40 - 154*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C9 PFNA	*106*		*39 - 162*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C6 PFDA	*99*		*41 - 153*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C7 PFUnA	*104*		*35 - 161*	*07/11/25 07:30*	*07/18/25 12:15*	*1*
13C2-PFDoDA	*96*		*22 - 165*	*07/11/25 07:30*	*07/18/25 12:15*	*1*

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-669876/2-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669876

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	105		17 - 156	07/11/25 07:30	07/18/25 12:15	1
13C3 PFBS	98		27 - 200	07/11/25 07:30	07/18/25 12:15	1
13C3 PFHxS	101		39 - 164	07/11/25 07:30	07/18/25 12:15	1
13C8 PFOS	104		44 - 153	07/11/25 07:30	07/18/25 12:15	1
13C8 FOSA	71		11 - 149	07/11/25 07:30	07/18/25 12:15	1
d3-NMeFOSAA				07/11/25 07:30	07/18/25 12:15	1
d5-NEtFOSAA	100		30 - 180	07/11/25 07:30	07/18/25 12:15	1
M2-4:2 FTS				07/11/25 07:30	07/18/25 12:15	1
M2-6:2 FTS	78		26 - 200	07/11/25 07:30	07/18/25 12:15	1
M2-8:2 FTS	93		27 - 200	07/11/25 07:30	07/18/25 12:15	1
13C3 HFPO-DA	90		11 - 166	07/11/25 07:30	07/18/25 12:15	1
d7-N-MeFOSE-M	72		10 - 154	07/11/25 07:30	07/18/25 12:15	1
d9-N-EtFOSE-M	74		10 - 146	07/11/25 07:30	07/18/25 12:15	1
d5-NEtPFOSA	75		10 - 130	07/11/25 07:30	07/18/25 12:15	1
d3-NMePFOSA	73		10 - 130	07/11/25 07:30	07/18/25 12:15	1
13C-6:2 FTCA	56		15 - 182	07/11/25 07:30	07/18/25 12:15	1

Lab Sample ID: LCS 410-669876/3-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12800	12300		ng/L		96	56 - 130
Perfluoropentanoic acid (PFPeA)	12800	12500		ng/L		97	56 - 130
Perfluorohexanoic acid (PFHxA)	12800	11700		ng/L		92	54 - 130
Perfluoroheptanoic acid (PFHpA)	12800	12400		ng/L		97	57 - 130
Perfluorooctanoic acid (PFOA)	12800	12900		ng/L		100	58 - 130
Perfluorononanoic acid (PFNA)	12800	11700		ng/L		91	61 - 130
Perfluorodecanoic acid (PFDA)	12800	12600		ng/L		99	61 - 130
Perfluoroundecanoic acid (PFUnA)	12800	11900		ng/L		93	60 - 130
Perfluorododecanoic acid (PFDoA)	12800	13200		ng/L		103	59 - 130
Perfluorotridecanoic acid (PFTrDA)	12800	14400		ng/L		112	56 - 130
Perfluorotetradecanoic acid (PFTeDA)	12800	12300		ng/L		96	59 - 130
Perfluorobutanesulfonic acid (PFBS)	11400	11000		ng/L		97	58 - 130
Perfluoropentanesulfonic acid (PFPeS)	12000	11300		ng/L		94	55 - 130
Perfluorohexanesulfonic acid (PFHxS)	11700	10900		ng/L		94	59 - 130
Perfluoroheptanesulfonic acid (PFHpS)	12200	11300		ng/L		93	55 - 130
Perfluorooctanesulfonic acid (PFOS)	11900	11000		ng/L		92	59 - 130
Perfluorononanesulfonic acid (PFNS)	12300	11300		ng/L		92	58 - 130
Perfluorodecanesulfonic acid (PFDS)	12300	11800		ng/L		96	53 - 130

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-669876/3-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanesulfonic acid (PFDoS)	12400	12100		ng/L		97	51 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	14000		ng/L		117	59 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	13300		ng/L		109	56 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	12800		ng/L		104	55 - 130
Perfluorooctanesulfonamide (PFOSA)	12800	13300		ng/L		104	64 - 133
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	11500		ng/L		90	59 - 148
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	11400		ng/L		89	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	11100		ng/L		86	58 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	11500		ng/L		90	57 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	11800		ng/L		92	60 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	12800		ng/L		100	61 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	11900		ng/L		93	47 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	11300		ng/L		94	57 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	11800		ng/L		92	56 - 137
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	12100		ng/L		94	49 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	12800	11600		ng/L		91	50 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	12000	11900		ng/L		100	58 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	12100	11400		ng/L		94	55 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	11400	10800		ng/L		94	50 - 130
3-Perfluoropropylpropanoic acid (3:3 FTCA)	12800	9640		ng/L		75	34 - 148
3-Perfluoropentylpropanoic acid (5:3 FTCA)	12800	9390		ng/L		73	45 - 139
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	12800	18700	*+	ng/L		146	38 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*104*		*10 - 168*
13C5 PFPeA	*101*		*15 - 189*
13C5 PFHxA	*99*		*20 - 165*
13C4 PFHpA	*104*		*33 - 166*
13C8 PFOA	*93*		*40 - 154*
13C9 PFNA	*105*		*39 - 162*

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-669876/3-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669876

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C6 PFDA	106		41 - 153
13C7 PFUnA	111		35 - 161
13C2-PFDoDA	92		22 - 165
13C2 PFTeDA	105		17 - 156
13C3 PFBS	103		27 - 200
13C3 PFHxS	103		39 - 164
13C8 PFOS	103		44 - 153
13C8 FOSA	73		11 - 149
d5-NEtFOSAA	110		30 - 180
M2-6:2 FTS	82		26 - 200
M2-8:2 FTS	94		27 - 200
13C3 HFPO-DA	96		11 - 166
d7-N-MeFOSE-M	66		10 - 154
d9-N-EtFOSE-M	67		10 - 146
d5-NEtPFOSA	67		10 - 130
d3-NMePFOSA	66		10 - 130
13C-6:2 FTCA	56		15 - 182

Lab Sample ID: LCSD 410-669876/4-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669876

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			12800	12300		ng/L		96	56 - 130	0	30
Perfluoropentanoic acid (PFPeA)			12800	11700		ng/L		91	56 - 130	7	30
Perfluorohexanoic acid (PFHxA)			12800	12200		ng/L		95	54 - 130	3	30
Perfluoroheptanoic acid (PFHpA)			12800	12500		ng/L		98	57 - 130	1	30
Perfluorooctanoic acid (PFOA)			12800	13000		ng/L		102	58 - 130	1	30
Perfluorononanoic acid (PFNA)			12800	11700		ng/L		92	61 - 130	1	30
Perfluorodecanoic acid (PFDA)			12800	11900		ng/L		93	61 - 130	6	30
Perfluoroundecanoic acid (PFUnA)			12800	12600		ng/L		99	60 - 130	5	30
Perfluorododecanoic acid (PFDoA)			12800	13000		ng/L		102	59 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)			12800	14300		ng/L		112	56 - 130	0	30
Perfluorotetradecanoic acid (PFTeDA)			12800	12400		ng/L		97	59 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)			11400	10900		ng/L		96	58 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)			12000	11400		ng/L		95	55 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)			11700	10900		ng/L		94	59 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS)			12200	11000		ng/L		90	55 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)			11900	11300		ng/L		95	59 - 130	2	30
Perfluorononanesulfonic acid (PFNS)			12300	11600		ng/L		94	58 - 130	2	30
Perfluorodecanesulfonic acid (PFDS)			12300	12200		ng/L		99	53 - 130	3	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-669876/4-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669876

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorododecanesulfonic acid (PFDoS)			12400	12400		ng/L		100	51 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			12000	13300		ng/L		111	59 - 130	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			12200	12200		ng/L		100	56 - 130	9	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			12300	11200		ng/L		91	55 - 130	14	30
Perfluorooctanesulfonamide (PFOSA)			12800	13500		ng/L		106	64 - 133	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			12800	11600		ng/L		91	59 - 148	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			12800	10900		ng/L		85	60 - 140	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			12800	11600		ng/L		91	58 - 130	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			12800	12600		ng/L		98	57 - 130	9	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			12800	12000		ng/L		94	60 - 130	2	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			12800	11800		ng/L		92	61 - 130	8	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			12800	12200		ng/L		96	47 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			12100	11500		ng/L		95	57 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			12800	11800		ng/L		92	56 - 137	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			12800	12200		ng/L		95	49 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			12800	11600		ng/L		91	50 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	11700		ng/L		98	58 - 130	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	11900		ng/L		98	55 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	10900		ng/L		96	50 - 130	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	9490		ng/L		74	34 - 148	2	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	10200		ng/L		80	45 - 139	8	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	19900	*+	ng/L		156	38 - 135	6	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*104*		*10 - 168*
13C5 PFPeA	*104*		*15 - 189*
13C5 PFHxA	*102*		*20 - 165*
13C4 PFHpA	*104*		*33 - 166*
13C8 PFOA	*93*		*40 - 154*
13C9 PFNA	*106*		*39 - 162*

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-669876/4-B
Matrix: Water
Analysis Batch: 672727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669876

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C6 PFDA	106		41 - 153
13C7 PFUnA	102		35 - 161
13C2-PFDoDA	90		22 - 165
13C2 PFTeDA	99		17 - 156
13C3 PFBS	103		27 - 200
13C3 PFHxS	104		39 - 164
13C8 PFOS	103		44 - 153
13C8 FOSA	72		11 - 149
d5-NEtFOSAA	102		30 - 180
M2-6:2 FTS	89		26 - 200
M2-8:2 FTS	103		27 - 200
13C3 HFPO-DA	95		11 - 166
d7-N-MeFOSE-M	69		10 - 154
d9-N-EtFOSE-M	72		10 - 146
d5-NEtPFOSA	73		10 - 130
d3-NMePFOSA	68		10 - 130
13C-6:2 FTCA	56		15 - 182

Lab Sample ID: MB 410-672633/2-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	0.80	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoropentanoic acid (PFPeA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorohexanoic acid (PFHxA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoroheptanoic acid (PFHpA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorooctanoic acid (PFOA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorononanoic acid (PFNA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorodecanoic acid (PFDA)	0.281	J	0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoroundecanoic acid (PFUnA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorododecanoic acid (PFDoA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorotridecanoic acid (PFTrDA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorotetradecanoic acid (PFTeDA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.40	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		0.60	0.51	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorononanesulfonic acid (PFNS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0	0.60	ng/g		07/17/25 08:29	07/19/25 22:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0	0.60	ng/g		07/17/25 08:29	07/19/25 22:12	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-672633/2-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		3.0	0.60	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluorooctanesulfonamide (PFOSA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		2.0	0.50	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2.0	0.50	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		2.0	0.50	ng/g		07/17/25 08:29	07/19/25 22:12	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		2.0	0.50	ng/g		07/17/25 08:29	07/19/25 22:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		3.0	1.0	ng/g		07/17/25 08:29	07/19/25 22:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		2.0	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1
6:2 FTCA	ND		0.60	0.20	ng/g		07/17/25 08:29	07/19/25 22:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*80*		*25 - 147*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C5 PFPeA	*92*		*17 - 154*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C5 PFHxA	*94*		*20 - 150*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C4 PFHpA	*97*		*20 - 158*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C8 PFOA	*82*		*28 - 148*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C9 PFNA	*99*		*27 - 159*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C6 PFDA	*94*		*25 - 152*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C7 PFUnA	*99*		*12 - 169*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C2-PFDoDA	*82*		*10 - 164*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C2 PFTeDA	*92*		*10 - 165*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C3 PFBS	*94*		*31 - 166*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C3 PFHxS	*95*		*26 - 155*	*07/17/25 08:29*	*07/19/25 22:12*	*1*
13C8 PFOS	*92*		*34 - 153*	*07/17/25 08:29*	*07/19/25 22:12*	*1*

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-672633/2-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 672633

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	77		13 - 151	07/17/25 08:29	07/19/25 22:12	1
d5-NEtFOSAA	105		10 - 188	07/17/25 08:29	07/19/25 22:12	1
M2-6:2 FTS	78		10 - 200	07/17/25 08:29	07/19/25 22:12	1
M2-8:2 FTS	79		10 - 200	07/17/25 08:29	07/19/25 22:12	1
13C3 HFPO-DA	88		17 - 147	07/17/25 08:29	07/19/25 22:12	1
d7-N-MeFOSE-M	63		10 - 177	07/17/25 08:29	07/19/25 22:12	1
d9-N-EtFOSE-M	65		10 - 168	07/17/25 08:29	07/19/25 22:12	1
d5-NEtPFOSA	67		10 - 149	07/17/25 08:29	07/19/25 22:12	1
d3-NMePFOSA	64		10 - 150	07/17/25 08:29	07/19/25 22:12	1
13C-6:2 FTCA	60		10 - 162	07/17/25 08:29	07/19/25 22:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA				07/17/25 08:29	07/19/25 22:12	1
13C4 PFOA				07/17/25 08:29	07/19/25 22:12	1
13C2 PFUnA				07/17/25 08:29	07/19/25 22:12	1

Lab Sample ID: LCS 410-672633/3-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	50.0	50.0		ng/g		100	60 - 130
Perfluoropentanoic acid (PFPeA)	50.0	50.2		ng/g		100	59 - 130
Perfluorohexanoic acid (PFHxA)	50.0	38.0		ng/g		76	56 - 130
Perfluoroheptanoic acid (PFHpA)	50.0	43.4		ng/g		87	56 - 130
Perfluorooctanoic acid (PFOA)	50.0	42.8		ng/g		86	56 - 130
Perfluorononanoic acid (PFNA)	50.0	39.5		ng/g		79	57 - 130
Perfluorodecanoic acid (PFDA)	50.0	42.0		ng/g		84	57 - 130
Perfluoroundecanoic acid (PFUnA)	50.0	43.4		ng/g		87	58 - 130
Perfluorododecanoic acid (PFDoA)	50.0	46.6		ng/g		93	58 - 130
Perfluorotridecanoic acid (PFTrDA)	50.0	49.5		ng/g		99	53 - 135
Perfluorotetradecanoic acid (PFTeDA)	50.0	42.1		ng/g		84	57 - 130
Perfluorobutanesulfonic acid (PFBS)	44.4	38.3		ng/g		86	56 - 130
Perfluoropentanesulfonic acid (PFPeS)	47.0	46.7		ng/g		99	54 - 130
Perfluorohexanesulfonic acid (PFHxS)	45.6	36.2		ng/g		79	57 - 130
Perfluoroheptanesulfonic acid (PFHpS)	47.7	45.2		ng/g		95	58 - 130
Perfluorooctanesulfonic acid (PFOS)	46.5	43.4		ng/g		93	57 - 130
Perfluorononanesulfonic acid (PFNS)	48.1	44.8		ng/g		93	56 - 130
Perfluorodecanesulfonic acid (PFDS)	48.2	48.4		ng/g		100	50 - 134

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-672633/3-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanesulfonic acid (PFDoS)	48.5	48.2		ng/g		99	43 - 132
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	46.9	55.7		ng/g		119	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	47.6	51.8		ng/g		109	59 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	48.0	48.2		ng/g		101	56 - 130
Perfluorooctanesulfonamide (PFOSA)	50.0	58.3		ng/g		117	64 - 130
N-methylperfluorooctane sulfonamide (NMeFOSA)	50.0	49.1		ng/g		98	64 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	50.0	50.1		ng/g		100	64 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.0	44.5		ng/g		89	56 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.0	45.1		ng/g		90	55 - 130
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	50.0	47.2		ng/g		94	59 - 130
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	50.0	52.8		ng/g		106	62 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	50.0	40.9		ng/g		82	48 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	47.3	38.9		ng/g		82	56 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	44.3		ng/g		89	56 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	40.3		ng/g		81	48 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	41.0		ng/g		82	41 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	46.7	37.3		ng/g		80	56 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	47.2	39.4		ng/g		84	50 - 135
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.6	40.8		ng/g		91	41 - 132
3-Perfluoropropylpropanoic acid (3:3 FTCA)	50.0	45.0		ng/g		90	10 - 158
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	45.3		ng/g		91	10 - 143
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	67.1		ng/g		134	17 - 152
6:2 FTCA	50.0	58.3		ng/g		117	46 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*93*		*25 - 147*
13C5 PFPeA	*96*		*17 - 154*
13C5 PFHxA	*98*		*20 - 150*
13C4 PFHpA	*97*		*20 - 158*
13C8 PFOA	*88*		*28 - 148*

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-672633/3-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 672633

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C9 PFNA	*94*		*27 - 159*
13C6 PFDA	*99*		*25 - 152*
13C7 PFUnA	*96*		*12 - 169*
13C2-PFDoDA	*84*		*10 - 164*
13C2 PFTeDA	*97*		*10 - 165*
13C3 PFBS	*101*		*31 - 166*
13C3 PFHxS	*101*		*26 - 155*
13C8 PFOS	*95*		*34 - 153*
13C8 FOSA	*82*		*13 - 151*
d5-NEtFOSAA	*105*		*10 - 188*
M2-6:2 FTS	*77*		*10 - 200*
M2-8:2 FTS	*89*		*10 - 200*
13C3 HFPO-DA	*92*		*17 - 147*
d7-N-MeFOSE-M	*73*		*10 - 177*
d9-N-EtFOSE-M	*70*		*10 - 168*
d5-NEtPFOSA	*70*		*10 - 149*
d3-NMePFOSA	*70*		*10 - 150*
13C-6:2 FTCA	*64*		*10 - 162*

Lab Sample ID: LCSD 410-672633/4-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672633

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			50.0	49.6		ng/g		99	60 - 130	1	30
Perfluoropentanoic acid (PFPeA)			50.0	48.4		ng/g		97	59 - 130	4	30
Perfluorohexanoic acid (PFHxA)			50.0	38.1		ng/g		76	56 - 130	0	30
Perfluoroheptanoic acid (PFHpA)			50.0	44.2		ng/g		88	56 - 130	2	30
Perfluorooctanoic acid (PFOA)			50.0	44.5		ng/g		89	56 - 130	4	30
Perfluorononanoic acid (PFNA)			50.0	41.3		ng/g		83	57 - 130	4	30
Perfluorodecanoic acid (PFDA)			50.0	44.2		ng/g		88	57 - 130	5	30
Perfluoroundecanoic acid (PFUnA)			50.0	43.0		ng/g		86	58 - 130	1	30
Perfluorododecanoic acid (PFDoA)			50.0	46.9		ng/g		94	58 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)			50.0	48.7		ng/g		97	53 - 135	2	30
Perfluorotetradecanoic acid (PFTeDA)			50.0	42.7		ng/g		85	57 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)			44.4	39.4		ng/g		89	56 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)			47.0	47.8		ng/g		102	54 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)			45.6	37.5		ng/g		82	57 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)			47.7	44.5		ng/g		93	58 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)			46.5	44.1		ng/g		95	57 - 130	2	30
Perfluorononanesulfonic acid (PFNS)			48.1	45.6		ng/g		95	56 - 130	2	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-672633/4-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672633

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorodecanesulfonic acid (PFDS)			48.2	48.2		ng/g		100	50 - 134	0	30
Perfluorododecanesulfonic acid (PFDoS)			48.5	50.9		ng/g		105	43 - 132	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			46.9	57.0		ng/g		121	57 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			47.6	54.5		ng/g		115	59 - 130	5	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			48.0	49.2		ng/g		103	56 - 130	2	30
Perfluorooctanesulfonamide (PFOSA)			50.0	58.1		ng/g		116	64 - 130	0	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			50.0	50.4		ng/g		101	64 - 130	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			50.0	49.2		ng/g		98	64 - 130	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			50.0	40.1		ng/g		80	56 - 130	10	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			50.0	47.7		ng/g		95	55 - 130	6	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			50.0	49.8		ng/g		100	59 - 130	5	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			50.0	52.9		ng/g		106	62 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			50.0	38.7		ng/g		77	48 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			47.3	39.5		ng/g		83	56 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			50.0	45.1		ng/g		90	56 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			50.0	40.2		ng/g		80	48 - 130	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			50.0	41.3		ng/g		83	41 - 134	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			46.7	38.7		ng/g		83	56 - 130	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			47.2	39.6		ng/g		84	50 - 135	0	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			44.6	39.6		ng/g		89	41 - 132	3	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			50.0	44.7		ng/g		89	10 - 158	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			50.0	46.5		ng/g		93	10 - 143	3	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			50.0	61.4		ng/g		123	17 - 152	9	30
6:2 FTCA			50.0	55.7		ng/g		111	46 - 130	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*89*		*25 - 147*
13C5 PFPeA	*94*		*17 - 154*
13C5 PFHxA	*98*		*20 - 150*
13C4 PFHpA	*97*		*20 - 158*

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-672633/4-B
Matrix: Solid
Analysis Batch: 673622

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 672633

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C8 PFOA	89		28 - 148
13C9 PFNA	95		27 - 159
13C6 PFDA	95		25 - 152
13C7 PFUnA	96		12 - 169
13C2-PFDoDA	83		10 - 164
13C2 PFTeDA	95		10 - 165
13C3 PFBS	97		31 - 166
13C3 PFHxS	100		26 - 155
13C8 PFOS	95		34 - 153
13C8 FOSA	79		13 - 151
d5-NEtFOSAA	101		10 - 188
M2-6:2 FTS	75		10 - 200
M2-8:2 FTS	89		10 - 200
13C3 HFPO-DA	94		17 - 147
d7-N-MeFOSE-M	74		10 - 177
d9-N-EtFOSE-M	75		10 - 168
d5-NEtPFOSA	80		10 - 149
d3-NMePFOSA	77		10 - 150
13C-6:2 FTCA	72		10 - 162

LCMS

Prep Batch: 664522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-1	DC290002-VS	Total/NA	Water	EPA 537 (Mod)	
410-227901-2	DC290002-SPOT	Total/NA	Water	EPA 537 (Mod)	
MB 410-664522/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-664522/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-664522/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 666871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-1	DC290002-VS	Total/NA	Water	Extract Aliquot	664522
410-227901-2	DC290002-SPOT	Total/NA	Water	Extract Aliquot	664522
MB 410-664522/1-B	Method Blank	Total/NA	Water	Extract Aliquot	664522
LCS 410-664522/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	664522
LCSD 410-664522/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	664522

Prep Batch: 668139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-3	DC290002-DET	Total/NA	Solid	537 (mod)	
MB 410-668139/1-B	Method Blank	Total/NA	Solid	537 (mod)	
LCS 410-668139/2-B	Lab Control Sample	Total/NA	Solid	537 (mod)	

Analysis Batch: 668235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-1	DC290002-VS	Total/NA	Water	537 IDA	666871
410-227901-2	DC290002-SPOT	Total/NA	Water	537 IDA	666871
MB 410-664522/1-B	Method Blank	Total/NA	Water	537 IDA	666871
LCS 410-664522/2-B	Lab Control Sample	Total/NA	Water	537 IDA	666871
LCSD 410-664522/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	666871

Cleanup Batch: 668301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-3	DC290002-DET	Total/NA	Solid	Extract Aliquot	668139
MB 410-668139/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	668139
LCS 410-668139/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	668139

Analysis Batch: 668782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-3	DC290002-DET	Total/NA	Solid	537 IDA	668301
MB 410-668139/1-B	Method Blank	Total/NA	Solid	537 IDA	668301
LCS 410-668139/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	668301

Prep Batch: 669876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-1	DC290002-VS	Post-Treatment	Water	TOP Post Prep	
410-227901-2 - RA	DC290002-SPOT	Post-Treatment	Water	TOP Post Prep	
410-227901-2	DC290002-SPOT	Post-Treatment	Water	TOP Post Prep	
MB 410-669876/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-669876/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-669876/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-669876/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

LCMS

Prep Batch: 670119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-2 - DL	DC290002-SPOT	Total/NA	Water	EPA 537 (Mod)	
410-227901-2 - RE	DC290002-SPOT	Total/NA	Water	EPA 537 (Mod)	
MB 410-670119/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-670119/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-670119/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 670855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-1	DC290002-VS	Post-Treatment	Water	Extract Aliquot	669876
410-227901-2 - RA	DC290002-SPOT	Post-Treatment	Water	Extract Aliquot	669876
410-227901-2	DC290002-SPOT	Post-Treatment	Water	Extract Aliquot	669876
MB 410-669876/1-B	Method Blank	Total/NA	Water	Extract Aliquot	669876
MB 410-669876/2-B	Method Blank	Total/NA	Water	Extract Aliquot	669876
LCS 410-669876/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	669876
LCSD 410-669876/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	669876

Cleanup Batch: 671725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-2 - DL	DC290002-SPOT	Total/NA	Water	Extract Aliquot	670119
410-227901-2 - RE	DC290002-SPOT	Total/NA	Water	Extract Aliquot	670119
MB 410-670119/1-B	Method Blank	Total/NA	Water	Extract Aliquot	670119
LCS 410-670119/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	670119
LCSD 410-670119/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	670119

Prep Batch: 672633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-3	DC290002-DET	Post-Treatment	Solid	TOP Post-Prep	
MB 410-672633/1-B	Method Blank	Total/NA	Solid	TOP Post-Prep	
MB 410-672633/2-B	Method Blank	Total/NA	Solid	TOP Post-Prep	
LCS 410-672633/3-B	Lab Control Sample	Total/NA	Solid	TOP Post-Prep	
LCSD 410-672633/4-B	Lab Control Sample Dup	Total/NA	Solid	TOP Post-Prep	

Analysis Batch: 672727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-1	DC290002-VS	Post-Treatment	Water	537 TOP	670855
410-227901-2	DC290002-SPOT	Post-Treatment	Water	537 TOP	670855
410-227901-2 - RA	DC290002-SPOT	Post-Treatment	Water	537 TOP	670855
MB 410-669876/1-B	Method Blank	Total/NA	Water	537 TOP	670855
MB 410-669876/2-B	Method Blank	Total/NA	Water	537 TOP	670855
LCS 410-669876/3-B	Lab Control Sample	Total/NA	Water	537 TOP	670855
LCSD 410-669876/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	670855

Analysis Batch: 672772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-2 - RE	DC290002-SPOT	Total/NA	Water	537 IDA	671725
MB 410-670119/1-B	Method Blank	Total/NA	Water	537 IDA	671725
LCS 410-670119/2-B	Lab Control Sample	Total/NA	Water	537 IDA	671725
LCSD 410-670119/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	671725

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

LCMS

Cleanup Batch: 673259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-3	DC290002-DET	Post-Treatment	Solid	Extract Aliquot	672633
MB 410-672633/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	672633
MB 410-672633/2-B	Method Blank	Total/NA	Solid	Extract Aliquot	672633
LCS 410-672633/3-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	672633
LCSD 410-672633/4-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	672633

Analysis Batch: 673349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-2 - DL	DC290002-SPOT	Total/NA	Water	537 IDA	671725

Analysis Batch: 673622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-3	DC290002-DET	Post-Treatment	Solid	537 TOP	673259
MB 410-672633/1-B	Method Blank	Total/NA	Solid	537 TOP	673259
MB 410-672633/2-B	Method Blank	Total/NA	Solid	537 TOP	673259
LCS 410-672633/3-B	Lab Control Sample	Total/NA	Solid	537 TOP	673259
LCSD 410-672633/4-B	Lab Control Sample Dup	Total/NA	Solid	537 TOP	673259

General Chemistry

Analysis Batch: 664812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-227901-3	DC290002-DET	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

Client Sample ID: DC290002-VS
Date Collected: 06/16/25 10:30
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/09/25 00:19
Post-Treatment	Prep	TOP Post Prep			669876	S7AC	ELLE	07/11/25 07:30
Post-Treatment	Cleanup	Extract Aliquot			670855	S7AC	ELLE	07/14/25 10:59
Post-Treatment	Analysis	537 TOP		1	672727	DSU6	ELLE	07/17/25 14:31

Client Sample ID: DC290002-SPOT
Date Collected: 06/16/25 10:40
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			664522	D5VP	ELLE	06/29/25 11:03
Total/NA	Cleanup	Extract Aliquot			666871	D5VP	ELLE	07/03/25 16:11
Total/NA	Analysis	537 IDA		1	668235	DSU6	ELLE	07/09/25 00:33
Total/NA	Prep	EPA 537 (Mod)	RE		670119	WHU6	ELLE	07/11/25 13:36
Total/NA	Cleanup	Extract Aliquot	RE		671725	WHU6	ELLE	07/15/25 19:39
Total/NA	Analysis	537 IDA	RE	1	672772	FDE4	ELLE	07/17/25 22:27
Total/NA	Prep	EPA 537 (Mod)	DL		670119	WHU6	ELLE	07/11/25 13:36
Total/NA	Cleanup	Extract Aliquot	DL		671725	WHU6	ELLE	07/15/25 19:39
Total/NA	Analysis	537 IDA	DL	10	673349	FDE4	ELLE	07/18/25 17:06
Post-Treatment	Prep	TOP Post Prep			669876	S7AC	ELLE	07/11/25 07:30
Post-Treatment	Cleanup	Extract Aliquot			670855	S7AC	ELLE	07/14/25 10:59
Post-Treatment	Analysis	537 TOP		1	672727	DSU6	ELLE	07/17/25 14:45
Post-Treatment	Prep	TOP Post Prep	RA		669876	S7AC	ELLE	07/11/25 07:30
Post-Treatment	Cleanup	Extract Aliquot	RA		670855	S7AC	ELLE	07/14/25 10:59
Post-Treatment	Analysis	537 TOP	RA	1	672727	DSU6	ELLE	07/18/25 11:48

Client Sample ID: DC290002-DET
Date Collected: 06/16/25 10:45
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	664812	S9WT	ELLE	06/30/25 10:00

Client Sample ID: DC290002-DET
Date Collected: 06/16/25 10:45
Date Received: 06/18/25 10:10

Lab Sample ID: 410-227901-3
Matrix: Solid
Percent Solids: 97.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537 (mod)			668139	D5VP	ELLE	07/08/25 09:11
Total/NA	Cleanup	Extract Aliquot			668301	D5VP	ELLE	07/08/25 13:44
Total/NA	Analysis	537 IDA		1	668782	DSU6	ELLE	07/10/25 02:39
Post-Treatment	Prep	TOP Post-Prep			672633	S7AC	ELLE	07/17/25 08:29
Post-Treatment	Cleanup	Extract Aliquot			673259	S7AC	ELLE	07/18/25 11:21
Post-Treatment	Analysis	537 TOP		1	673622	DSU6	ELLE	07/19/25 22:53

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-227901-1
Project/Site: Youngs Cleaners (DC290002)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	09-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	537 (mod)	Solid	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	537 (mod)	Solid	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	537 (mod)	Solid	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	537 (mod)	Solid	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	537 (mod)	Solid	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	537 (mod)	Solid	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	537 (mod)	Solid	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	537 (mod)	Solid	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	537 (mod)	Solid	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	537 (mod)	Solid	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	537 (mod)	Solid	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	537 (mod)	Solid	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	537 (mod)	Solid	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	537 (mod)	Solid	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	537 (mod)	Solid	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	537 (mod)	Solid	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	537 (mod)	Solid	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	537 (mod)	Solid	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	537 (mod)	Solid	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	537 (mod)	Solid	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	537 (mod)	Solid	Perfluorobutanesulfonic acid (PFBS)
537 IDA	537 (mod)	Solid	Perfluorobutanoic acid (PFBA)
537 IDA	537 (mod)	Solid	Perfluorodecanesulfonic acid (PFDS)
537 IDA	537 (mod)	Solid	Perfluorodecanoic acid (PFDA)
537 IDA	537 (mod)	Solid	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	537 (mod)	Solid	Perfluorododecanoic acid (PFDoA)
537 IDA	537 (mod)	Solid	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	537 (mod)	Solid	Perfluoroheptanoic acid (PFHpA)
537 IDA	537 (mod)	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	537 (mod)	Solid	Perfluorohexanoic acid (PFHxA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	537 (mod)	Solid	Perfluorononanesulfonic acid (PFNS)
537 IDA	537 (mod)	Solid	Perfluorononanoic acid (PFNA)
537 IDA	537 (mod)	Solid	Perfluorooctanesulfonamide (PFOSA)
537 IDA	537 (mod)	Solid	Perfluorooctanesulfonic acid (PFOS)
537 IDA	537 (mod)	Solid	Perfluorooctanoic acid (PFOA)
537 IDA	537 (mod)	Solid	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	537 (mod)	Solid	Perfluoropentanoic acid (PFPeA)
537 IDA	537 (mod)	Solid	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	537 (mod)	Solid	Perfluorotridecanoic acid (PFTrDA)
537 IDA	537 (mod)	Solid	Perfluoroundecanoic acid (PFUnA)
537 IDA	EPA 537 (Mod)	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	EPA 537 (Mod)	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	EPA 537 (Mod)	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	EPA 537 (Mod)	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid (PFBS)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid (PFBA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid (PFDS)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid (PFDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid (PFDoA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid (PFHpA)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid (PFHxA)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid (PFNS)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid (PFNA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide (PFOSA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid (PFOS)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid (PFOA)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid (PFPeA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid (PFTrDA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid (PFUnA)
537 TOP	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)

Client: Hart & Hickman, PC
Job ID: 410-227901-1
Project/Site: Youngs Cleaners (DC290002)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)
537 TOP	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)
537 TOP	TOP Post-Prep	Solid	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post-Prep	Solid	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post-Prep	Solid	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post-Prep	Solid	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post-Prep	Solid	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post-Prep	Solid	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post-Prep	Solid	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post-Prep	Solid	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post-Prep	Solid	6:2 FTCA
537 TOP	TOP Post-Prep	Solid	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post-Prep	Solid	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)

Client: Hart & Hickman, PC
Job ID: 410-227901-1
Project/Site: Youngs Cleaners (DC290002)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post-Prep	Solid	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post-Prep	Solid	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post-Prep	Solid	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post-Prep	Solid	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post-Prep	Solid	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post-Prep	Solid	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post-Prep	Solid	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post-Prep	Solid	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post-Prep	Solid	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post-Prep	Solid	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post-Prep	Solid	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post-Prep	Solid	Perfluorobutanoic acid (PFBA)
537 TOP	TOP Post-Prep	Solid	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post-Prep	Solid	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post-Prep	Solid	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post-Prep	Solid	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post-Prep	Solid	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post-Prep	Solid	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post-Prep	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post-Prep	Solid	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post-Prep	Solid	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post-Prep	Solid	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post-Prep	Solid	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post-Prep	Solid	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post-Prep	Solid	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post-Prep	Solid	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post-Prep	Solid	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post-Prep	Solid	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post-Prep	Solid	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post-Prep	Solid	Perfluoroundecanoic acid (PFUnA)
Moisture		Solid	Percent Moisture

Method Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 TOP	Fluorinated Alkyl Substances	EPA	ELLE
Moisture	Percent Moisture	EPA	ELLE
537 (mod)	EPA 537 Isotope Dilution	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE
TOP Post-Prep	Shake Extraction with Ultrasonic Bath Extraction	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: Youngs Cleaners (DC290002)

Job ID: 410-227901-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-227901-1	DC290002-VS	Water	06/16/25 10:30	06/18/25 10:10	North Carolina
410-227901-2	DC290002-SPOT	Water	06/16/25 10:40	06/18/25 10:10	North Carolina
410-227901-3	DC290002-DET	Solid	06/16/25 10:45	06/18/25 10:10	North Carolina

nvironme

Chain of Custody Record

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410-227901 Chain of Custody

Client Contact: Sam Martin	Sampler: Gavin De Mars	Lab PM: Gallagher, Kelly	Carrier Tracking No(s):	COC No: 410-159587-44130.1
	Phone: (451) 595 - 2256	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #:
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			Preservation Codes: N - None
City: Charlotte	TAT Requested (days): Standard H&H (10-day)			
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-887-4606(Tel)	PO #: DS0 PFAS			
Email: smartin@harthickman.com	WO #:			Other:
Project Name: Youngs Cleaners (DC290002)	Project #: 41025876			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_Final - List of 40 based on EPA method	1633_Final, 1633_TOPS (Post)	537 Mod	Total Number of containers	Special Instructions/Note:
			Preservation Code:		N	N					
DC290002-VS	6/16/25	10:30	G	Water	N	N		✓	✓	3	*Please report J flags & report non-detects as < MDLs
DC290002-SPOT		10:40		Water			✓	✓	✓	3	
DC290002-DET		10:45		~~Water~~ Solid			✓	✓	✓	3	*EDD formats: H&H, ~~NCDSCA~~, NCDEQ
DC290002-MW-9		12:05		Water			✓	✓	✓	3	
DC290002-MW-3		13:55		Water			✓	✓	✓	3	*Samples -VS & -SPOT have high levels / are concentrated of solvent
DC290002-EB		13:40		Water			✓			2	
DC290002-FB		13:50		Water			✓			1	
DC290002 ~~blank~~-DUP		—		Water			✓			2	
				Water							
				Water							
				Water							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: GDeMars	6/16/25 16:30	H&H		6/16/25 1130	
Relinquished by:	6/16/25 1700		Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/18/25 10:40	Company ECHET

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 22.2-22.0

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-227901-1

Login Number: 227901
List Number: 1
Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

PRODUCT SAMPLES

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ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 2/4/2026 9:18:07 AM Revision 1

JOB DESCRIPTION

NC DSCA PFAS Pilot Study

JOB NUMBER

410-243791-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
2/4/2026 9:18:07 AM
Revision 1

Authorized for release by
Joshua Burdelik, IT Support
Joshua.Burdelik@et.eurofinsus.com
Designee for
David Barnhart, Senior Project Manager
David.Barnhart@et.eurofinsus.com
(717)656-2300

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Definitions/Glossary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-243791-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-243791-1 — Eurofins Lancaster Laboratories Environment

Job Narrative
410-243791-1

REVISION

The report being provided is a revision of the original report sent on 10/24/2025. The report (revision 1) is being revised due to an update to the case narrative to include all relevent information, reletive to method 537.

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 9/25/2025 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C.

PFAS
Method 537 TOP - Post-Treatment: The recovery for labeled isotope: d3-NMeFOSAA, d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS is outside the QC acceptance limits in the closing continuing calibration verification standard. Since the recovery for the labeled isotope is within QC limits in the following samples: DC-VS (410-243791-1), DC-SPOT-1 (410-243791-2) and DC-SPOT-2 (410-243791-3), the data is reported.

Method 537 TOP - Post-Treatment: The recovery for target analytes: M2-6:2 FTS and M2-8:2 FTS are outside the QC acceptance limits in the closing continuing calibration verification standard due to the matrix of the samples.

Method 537 TOP - Post-Treatment: The recovery for the labeled isotope: M2-6:2 FTS and M2-8:2 FTS in the following samples: DC-SPOT-1 (410-243791-2) and DC-SPOT-2 (410-243791-3) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method 537 TOP - Post-Treatment: The sample injection standard peak areas in the following samples: DC-SPOT-1 (410-243791-2) and DC-SPOT-2 (410-243791-3) are outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Method 537 TOP - Post-Treatment: Isotope dilution analyte (IDA) 13C4 PFBA and 13C2 PFTeDA recoveries were outside QC acceptance criteria in samples DC-SPOT-1 (410-243791-2) and DC-SPOT-2 (410-243791-3). The isotope dilution technique corrects the results for the target analytes for any losses that occur during the sample extraction and/or concentration. For all IDA's, the signal to noise was greater than 10:1, therefore the data is reported.

Method 537 IDA: The recoveries for 13C2-6:2 FTS and 13C2-8:2 FTS are above the QC acceptance limits in the closing continuing calibration verification standard. Since the recoveries for the labeled isotopes are within the QC acceptance limits in DC-VS (410-243791-1), the data are reported.

Method 537 IDA: The recovery for target analyte 3-Perfluoropropylpropanoic acid (3:3 FTCA) is outside the QC acceptance limits in the opening and closing continuing calibration verification standard. Since the result is high and target is not detected in the following samples: DC-SPOT-1 (410-243791-2) and DC-SPOT-2 (410-243791-3), the data is reported.

Method 537 IDA: The recovery for the labeled isotope: 13C2-4:2 FTS, 13C2-6:2 FTS and 13C2-8:2 FTS in the following samples: DC-SPOT-1 (410-243791-2) and DC-SPOT-2 (410-243791-3) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-243791-1

Client Sample ID: DC-VS — Lab Sample ID: 410-243791-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	340	J B	1000	250	ng/L	1		537 TOP	Post-Treatment
Perfluoro-3-methoxypropanoic acid (PFMPA)	450	J	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC-SPOT-1 — Lab Sample ID: 410-243791-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1300	J	2500	980	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid (PFDA)	540	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	5600	cn	1000	250	ng/L	1		537 TOP	Post-Treatment

Client Sample ID: DC-SPOT-2 — Lab Sample ID: 410-243791-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	320	J B cn	1000	250	ng/L	1		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-243791-1

Client Sample ID: DC-VS
Date Collected: 09/23/25 15:30
Date Received: 09/25/25 09:50

Lab Sample ID: 410-243791-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		10/03/25 14:34	10/10/25 17:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		10/03/25 14:34	10/10/25 17:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		10/03/25 14:34	10/10/25 17:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	490	ng/L		10/03/25 14:34	10/10/25 17:02	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		10/03/25 14:34	10/10/25 17:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		970	290	ng/L		10/03/25 14:34	10/10/25 17:02	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		10/03/25 14:34	10/10/25 17:02	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorobutanoic acid (PFBA)	ND		2400	970	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorodecanesulfonic acid (PFDS)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorodecanoic acid (PFDA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorododecanoic acid (PFDoA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluoroheptanoic acid (PFHpA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorohexanoic acid (PFHxA)	ND		970	440	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorononanesulfonic acid (PFNS)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorononanoic acid (PFNA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorooctanesulfonamide (PFOSA)	ND		970	340	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorooctanesulfonic acid (PFOS)	ND		970	490	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorooctanoic acid (PFOA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluoropentanesulfonic acid (PFPeS)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluoropentanoic acid (PFPeA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorotetradecanoic acid (PFTeDA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluorotridecanoic acid (PFTrDA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluoroundecanoic acid (PFUnA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1

Client Sample ID: DC-VS
Lab Sample ID: 410-243791-1
Date Collected: 09/23/25 15:30
Matrix: Water
Date Received: 09/25/25 09:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		970	240	ng/L		10/03/25 14:34	10/10/25 17:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*109*		*19 - 191*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C2-6:2 FTS	*131*	*cn*	*13 - 200*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C2-8:2 FTS	*122*	*cn*	*10 - 200*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C2-PFTeDA	*88*		*10 - 186*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C3-HFPO-DA	*80*		*10 - 140*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C3-PFBS	*109*		*24 - 176*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C4-PFBA	*105*		*26 - 162*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C4-PFHpA	*106*		*10 - 193*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C5-PFPeA	*102*		*15 - 162*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C8-PFOA	*107*		*27 - 160*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C8-PFOS	*110*		*22 - 172*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
d3-NMeFOSAA	*109*		*10 - 198*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
d5-NEtFOSAA	*104*		*10 - 200*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
d7-N-MeFOSE-M	*47*		*10 - 181*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
d9-N-EtFOSE-M	*51*		*10 - 182*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C3-PFHxS	*120*		*11 - 180*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C5-PFHxA	*95*		*10 - 176*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C6-PFDA	*106*		*19 - 168*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C7-PFUnA	*95*		*10 - 182*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
d3-NMePFOSA	*15*		*10 - 137*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
d5-NEtPFOSA	*15*		*10 - 130*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C8-PFOSA	*72*		*10 - 149*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C2-PFDoA	*92*		*10 - 183*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C9-PFNA	*101*		*10 - 198*	*10/03/25 14:34*	*10/10/25 17:02*	*1*
13C-6:2 FTCA	*93*		*10 - 185*	*10/03/25 14:34*	*10/10/25 17:02*	*1*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorodecanoic acid (PFDA)	**340**	**J B**	1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1

Client Sample ID: DC-VS

Date Collected: 09/23/25 15:30
Date Received: 09/25/25 09:50

Lab Sample ID: 410-243791-1

Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 05:31	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		10/03/25 07:57	10/12/25 05:31	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		10/03/25 07:57	10/12/25 05:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	**450**	**J**	1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 05:31	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 05:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86*		*17 - 153*	*10/03/25 07:57*	*10/12/25 05:31*	*1*
13C5 PFPeA	*95*		*19 - 178*	*10/03/25 07:57*	*10/12/25 05:31*	*1*
13C5 PFHxA	*76*		*26 - 156*	*10/03/25 07:57*	*10/12/25 05:31*	*1*

Client Sample ID: DC-VS

Date Collected: 09/23/25 15:30
Date Received: 09/25/25 09:50

Lab Sample ID: 410-243791-1
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	54		33 - 158	10/03/25 07:57	10/12/25 05:31	1
13C8 PFOA	120		35 - 146	10/03/25 07:57	10/12/25 05:31	1
13C9 PFNA	86		37 - 157	10/03/25 07:57	10/12/25 05:31	1
13C6 PFDA	84		36 - 152	10/03/25 07:57	10/12/25 05:31	1
13C7 PFUnA	83		32 - 155	10/03/25 07:57	10/12/25 05:31	1
13C2-PFDoDA	93		23 - 149	10/03/25 07:57	10/12/25 05:31	1
13C2 PFTeDA	90		17 - 149	10/03/25 07:57	10/12/25 05:31	1
13C3 PFBS	108		20 - 198	10/03/25 07:57	10/12/25 05:31	1
13C3 PFHxS	70		35 - 165	10/03/25 07:57	10/12/25 05:31	1
13C8 PFOS	91		41 - 155	10/03/25 07:57	10/12/25 05:31	1
13C8 FOSA	74		20 - 142	10/03/25 07:57	10/12/25 05:31	1
d5-NEtFOSAA	102	cn	28 - 188	10/03/25 07:57	10/12/25 05:31	1
M2-6:2 FTS	159	cn	25 - 189	10/03/25 07:57	10/12/25 05:31	1
M2-8:2 FTS	138	cn	28 - 192	10/03/25 07:57	10/12/25 05:31	1
13C3 HFPO-DA	73		26 - 161	10/03/25 07:57	10/12/25 05:31	1
d7-N-MeFOSE-M	80		10 - 155	10/03/25 07:57	10/12/25 05:31	1
d9-N-EtFOSE-M	76		10 - 147	10/03/25 07:57	10/12/25 05:31	1
d5-NEtPFOSA	57		10 - 130	10/03/25 07:57	10/12/25 05:31	1
d3-NMePFOSA	61		10 - 130	10/03/25 07:57	10/12/25 05:31	1
13C-6:2 FTCA	76		18 - 186	10/03/25 07:57	10/12/25 05:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	62		38 - 139	10/03/25 07:57	10/12/25 05:31	1
13C2 PFUnA	67		29 - 153	10/03/25 07:57	10/12/25 05:31	1
13C4 PFOA	80		23 - 190	10/03/25 07:57	10/12/25 05:31	1

Client Sample ID: DC-SPOT-1

Date Collected: 09/23/25 15:45
Date Received: 09/25/25 09:50

Lab Sample ID: 410-243791-2
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		10/03/25 14:34	10/13/25 13:13	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	490	ng/L		10/03/25 14:34	10/13/25 13:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	490	ng/L		10/03/25 14:34	10/13/25 13:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	490	ng/L		10/03/25 14:34	10/13/25 13:13	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	490	ng/L		10/03/25 14:34	10/13/25 13:13	1

Client Sample ID: DC-SPOT-1
Lab Sample ID: 410-243791-2
Date Collected: 09/23/25 15:45
Matrix: Water
Date Received: 09/25/25 09:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		980	290	ng/L		10/03/25 14:34	10/13/25 13:13	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	490	ng/L		10/03/25 14:34	10/13/25 13:13	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	490	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorobutanoic acid (PFBA)	**1300**	**J**	2500	980	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorodecanesulfonic acid (PFDS)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorodecanoic acid (PFDA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorododecanoic acid (PFDoA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluoroheptanoic acid (PFHpA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorohexanoic acid (PFHxA)	ND		980	440	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorononanesulfonic acid (PFNS)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorononanoic acid (PFNA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorooctanesulfonamide (PFOSA)	ND		980	340	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		980	490	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorooctanoic acid (PFOA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluoropentanesulfonic acid (PFPeS)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluoropentanoic acid (PFPeA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorotetradecanoic acid (PFTeDA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluorotridecanoic acid (PFTrDA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluoroundecanoic acid (PFUnA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		980	250	ng/L		10/03/25 14:34	10/13/25 13:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*806*	**5+ cn*	*19 - 191*	*10/03/25 14:34*	*10/13/25 13:13*	*1*
13C2-6:2 FTS	*842*	**5+ cn*	*13 - 200*	*10/03/25 14:34*	*10/13/25 13:13*	*1*
13C2-8:2 FTS	*615*	**5+ cn*	*10 - 200*	*10/03/25 14:34*	*10/13/25 13:13*	*1*
13C2-PFTeDA	*13*		*10 - 186*	*10/03/25 14:34*	*10/13/25 13:13*	*1*
13C3-HFPO-DA	*98*		*10 - 140*	*10/03/25 14:34*	*10/13/25 13:13*	*1*
13C3-PFBS	*92*		*24 - 176*	*10/03/25 14:34*	*10/13/25 13:13*	*1*
13C4-PFBA	*76*		*26 - 162*	*10/03/25 14:34*	*10/13/25 13:13*	*1*
13C4-PFHpA	*94*		*10 - 193*	*10/03/25 14:34*	*10/13/25 13:13*	*1*

Client Sample ID: DC-SPOT-1
Lab Sample ID: 410-243791-2
Date Collected: 09/23/25 15:45
Matrix: Water
Date Received: 09/25/25 09:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5-PFPeA	84		15 - 162	10/03/25 14:34	10/13/25 13:13	1
13C8-PFOA	87		27 - 160	10/03/25 14:34	10/13/25 13:13	1
13C8-PFOS	93		22 - 172	10/03/25 14:34	10/13/25 13:13	1
d3-NMeFOSAA	156		10 - 198	10/03/25 14:34	10/13/25 13:13	1
d5-NEtFOSAA	81		10 - 200	10/03/25 14:34	10/13/25 13:13	1
d7-N-MeFOSE-M	32		10 - 181	10/03/25 14:34	10/13/25 13:13	1
d9-N-EtFOSE-M	12		10 - 182	10/03/25 14:34	10/13/25 13:13	1
13C3-PFHxS	113		11 - 180	10/03/25 14:34	10/13/25 13:13	1
13C5-PFHxA	110		10 - 176	10/03/25 14:34	10/13/25 13:13	1
13C6-PFDA	97		19 - 168	10/03/25 14:34	10/13/25 13:13	1
13C7-PFUnA	58		10 - 182	10/03/25 14:34	10/13/25 13:13	1
d3-NMePFOSA	46		10 - 137	10/03/25 14:34	10/13/25 13:13	1
d5-NEtPFOSA	22		10 - 130	10/03/25 14:34	10/13/25 13:13	1
13C8-PFOSA	26		10 - 149	10/03/25 14:34	10/13/25 13:13	1
13C2-PFDoA	69		10 - 183	10/03/25 14:34	10/13/25 13:13	1
13C9-PFNA	100		10 - 198	10/03/25 14:34	10/13/25 13:13	1
13C-6:2 FTCA	115		10 - 185	10/03/25 14:34	10/13/25 13:13	1

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorodecanoic acid (PFDA)	**540**	**J B cn**	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		10/03/25 07:57	10/12/25 05:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		10/03/25 07:57	10/12/25 05:45	1

Client Sample ID: DC-SPOT-1
Lab Sample ID: 410-243791-2
Date Collected: 09/23/25 15:45
Matrix: Water
Date Received: 09/25/25 09:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	**5600**	**cn**	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		10/03/25 07:57	10/12/25 05:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:45	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		10/03/25 07:57	10/12/25 05:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*6*	**5- cn*	*17 - 153*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C5 PFPeA	*20*	*cn*	*19 - 178*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C5 PFHxA	*76*	*cn*	*26 - 156*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C4 PFHpA	*60*	*cn*	*33 - 158*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C8 PFOA	*119*	*cn*	*35 - 146*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C9 PFNA	*64*	*cn*	*37 - 157*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C6 PFDA	*98*	*cn*	*36 - 152*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C7 PFUnA	*88*	*cn*	*32 - 155*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C2-PFDoDA	*99*	*cn*	*23 - 149*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C2 PFTeDA	*5*	**5- cn*	*17 - 149*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C3 PFBS	*101*	*cn*	*20 - 198*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C3 PFHxS	*107*	*cn*	*35 - 165*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C8 PFOS	*90*	*cn*	*41 - 155*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C8 FOSA	*64*	*cn*	*20 - 142*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
d5-NEtFOSAA	*108*	*cn*	*28 - 188*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
M2-6:2 FTS	*465*	**5+ cn*	*25 - 189*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
M2-8:2 FTS	*433*	**5+ cn*	*28 - 192*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
13C3 HFPO-DA	*63*	*cn*	*26 - 161*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
d7-N-MeFOSE-M	*48*	*cn*	*10 - 155*	*10/03/25 07:57*	*10/12/25 05:45*	*1*
d9-N-EtFOSE-M	*30*	*cn*	*10 - 147*	*10/03/25 07:57*	*10/12/25 05:45*	*1*

Client Sample ID: DC-SPOT-1

Date Collected: 09/23/25 15:45
Date Received: 09/25/25 09:50

Lab Sample ID: 410-243791-2

Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	23	cn	10 - 130	10/03/25 07:57	10/12/25 05:45	1
d3-NMePFOSA	78	cn	10 - 130	10/03/25 07:57	10/12/25 05:45	1
13C-6:2 FTCA	67	cn	18 - 186	10/03/25 07:57	10/12/25 05:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	66	cn	38 - 139	10/03/25 07:57	10/12/25 05:45	1
13C2 PFUnA	52	cn	29 - 153	10/03/25 07:57	10/12/25 05:45	1
13C4 PFOA	75	cn	23 - 190	10/03/25 07:57	10/12/25 05:45	1

Client Sample ID: DC-SPOT-2

Date Collected: 09/23/25 16:00
Date Received: 09/25/25 09:50

Lab Sample ID: 410-243791-3

Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2400	2000	ng/L		10/03/25 14:34	10/13/25 13:28	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1400	480	ng/L		10/03/25 14:34	10/13/25 13:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1400	480	ng/L		10/03/25 14:34	10/13/25 13:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1400	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2400	480	ng/L		10/03/25 14:34	10/13/25 13:28	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1400	480	ng/L		10/03/25 14:34	10/13/25 13:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		950	290	ng/L		10/03/25 14:34	10/13/25 13:28	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1400	480	ng/L		10/03/25 14:34	10/13/25 13:28	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1400	480	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorobutanesulfonic acid (PFBS)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorobutanoic acid (PFBA)	ND		2400	950	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorodecanesulfonic acid (PFDS)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorodecanoic acid (PFDA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1400	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorododecanoic acid (PFDoA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluoroheptanoic acid (PFHpA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorohexanesulfonic acid (PFHxS)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorohexanoic acid (PFHxA)	ND		950	430	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorononanesulfonic acid (PFNS)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1

Client Sample ID: DC-SPOT-2
Lab Sample ID: 410-243791-3
Date Collected: 09/23/25 16:00
Matrix: Water
Date Received: 09/25/25 09:50

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorooctanesulfonamide (PFOSA)	ND		950	330	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorooctanesulfonic acid (PFOS)	ND		950	480	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorooctanoic acid (PFOA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluoropentanesulfonic acid (PFPeS)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluoropentanoic acid (PFPeA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorotetradecanoic acid (PFTeDA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluorotridecanoic acid (PFTrDA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluoroundecanoic acid (PFUnA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		950	240	ng/L		10/03/25 14:34	10/13/25 13:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*740*	**5+ cn*	*19 - 191*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C2-6:2 FTS	*757*	**5+ cn*	*13 - 200*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C2-8:2 FTS	*409*	**5+ cn*	*10 - 200*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C2-PFTeDA	*44*		*10 - 186*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C3-HFPO-DA	*86*		*10 - 140*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C3-PFBS	*67*		*24 - 176*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C4-PFBA	*64*		*26 - 162*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C4-PFHpA	*97*		*10 - 193*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C5-PFPeA	*68*		*15 - 162*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C8-PFOA	*75*		*27 - 160*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C8-PFOS	*82*		*22 - 172*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
d3-NMeFOSAA	*119*		*10 - 198*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
d5-NEtFOSAA	*125*		*10 - 200*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
d7-N-MeFOSE-M	*51*		*10 - 181*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
d9-N-EtFOSE-M	*13*		*10 - 182*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C3-PFHxS	*88*		*11 - 180*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C5-PFHxA	*115*		*10 - 176*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C6-PFDA	*74*		*19 - 168*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C7-PFUnA	*63*		*10 - 182*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
d3-NMePFOSA	*61*		*10 - 137*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
d5-NEtPFOSA	*25*		*10 - 130*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C8-PFOSA	*36*		*10 - 149*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C2-PFDoA	*52*		*10 - 183*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C9-PFNA	*114*		*10 - 198*	*10/03/25 14:34*	*10/13/25 13:28*	*1*
13C-6:2 FTCA	*135*		*10 - 185*	*10/03/25 14:34*	*10/13/25 13:28*	*1*

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-243791-1

Client Sample ID: DC-SPOT-2
Date Collected: 09/23/25 16:00
Date Received: 09/25/25 09:50

Lab Sample ID: 410-243791-3
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	cn	1000	500	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluoropentanoic acid (PFPeA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorohexanoic acid (PFHxA)	ND	cn	1000	500	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluoroheptanoic acid (PFHpA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorooctanoic acid (PFOA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorononanoic acid (PFNA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorodecanoic acid (PFDA)	**320**	**J B cn**	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluoroundecanoic acid (PFUnA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorododecanoic acid (PFDoA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorotridecanoic acid (PFTrDA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorotetradecanoic acid (PFTeDA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorobutanesulfonic acid (PFBS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluoropentanesulfonic acid (PFPeS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorohexanesulfonic acid (PFHxS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluoroheptanesulfonic acid (PFHpS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorooctanesulfonic acid (PFOS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorononanesulfonic acid (PFNS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorodecanesulfonic acid (PFDS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorododecanesulfonic acid (PFDoS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND	cn	1000	550	ng/L		10/03/25 07:57	10/12/25 05:59	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND	cn	1000	300	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluorooctanesulfonamide (PFOSA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND	cn	1000	350	ng/L		10/03/25 07:57	10/12/25 05:59	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	cn	1000	800	ng/L		10/03/25 07:57	10/12/25 05:59	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1

Client Sample ID: DC-SPOT-2
Lab Sample ID: 410-243791-3
Date Collected: 09/23/25 16:00
Matrix: Water
Date Received: 09/25/25 09:50

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND	cn	1000	250	ng/L		10/03/25 07:57	10/12/25 05:59	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND	cn	1000	550	ng/L		10/03/25 07:57	10/12/25 05:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*34*	*cn*	*17 - 153*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C5 PFPeA	*84*	*cn*	*19 - 178*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C5 PFHxA	*55*	*cn*	*26 - 156*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C4 PFHpA	*58*	*cn*	*33 - 158*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C8 PFOA	*113*	*cn*	*35 - 146*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C9 PFNA	*80*	*cn*	*37 - 157*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C6 PFDA	*89*	*cn*	*36 - 152*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C7 PFUnA	*64*	*cn*	*32 - 155*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C2-PFDoDA	*71*	*cn*	*23 - 149*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C2 PFTeDA	*90*	*cn*	*17 - 149*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C3 PFBS	*157*	*cn*	*20 - 198*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C3 PFHxS	*98*	*cn*	*35 - 165*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C8 PFOS	*91*	*cn*	*41 - 155*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C8 FOSA	*63*	*cn*	*20 - 142*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
d5-NEtFOSAA	*73*	*cn*	*28 - 188*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
M2-6:2 FTS	*483*	**5+ cn*	*25 - 189*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
M2-8:2 FTS	*383*	**5+ cn*	*28 - 192*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C3 HFPO-DA	*68*	*cn*	*26 - 161*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
d7-N-MeFOSE-M	*39*	*cn*	*10 - 155*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
d9-N-EtFOSE-M	*32*	*cn*	*10 - 147*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
d5-NEtPFOSA	*33*	*cn*	*10 - 130*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
d3-NMePFOSA	*55*	*cn*	*10 - 130*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C-6:2 FTCA	*65*	*cn*	*18 - 186*	*10/03/25 07:57*	*10/12/25 05:59*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*50*	*cn*	*38 - 139*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C2 PFUnA	*33*	*cn*	*29 - 153*	*10/03/25 07:57*	*10/12/25 05:59*	*1*
13C4 PFOA	*72*	*cn*	*23 - 190*	*10/03/25 07:57*	*10/12/25 05:59*	*1*

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-243791-1

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFUnA	PFOA
Lab Sample ID	Client Sample ID			
MB 410-708636/2-B	Method Blank			

Surrogate Legend

PFHxA = 13C2 PFHxA
PFUnA = 13C2 PFUnA
PFOA = 13C4 PFOA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Surrogate Recovery (Acceptance Limits)		
		PFHxA	PFUnA	PFOA
Lab Sample ID	Client Sample ID	(38-139)	(29-153)	(23-190)
410-243791-1	DC-VS	62	67	80
410-243791-2	DC-SPOT-1	66 cn	52 cn	75 cn
410-243791-3	DC-SPOT-2	50 cn	33 cn	72 cn

Surrogate Legend

PFHxA = 13C2 PFHxA
PFUnA = 13C2 PFUnA
PFOA = 13C4 PFOA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-243791-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (19-191)	M262FTS (13-200)	M282FTS (10-200)	PFTDA (10-186)	HFPODA (10-140)	C3PFBS (24-176)	PFBA (26-162)	C4PFHA (10-193)
410-243791-1	DC-VS	109	131 cn	122 cn	88	80	109	105	106
410-243791-2	DC-SPOT-1	806 *5+ cn	842 *5+ cn	615 *5+ cn	13	98	92	76	94
410-243791-3	DC-SPOT-2	740 *5+ cn	757 *5+ cn	409 *5+ cn	44	86	67	64	97
LCS 410-708902/2-B	Lab Control Sample	104	121	126	99	86	98	96	96
LCS 410-708902/2-B	Lab Control Sample	98	93	88	80	96	87	98	94
LCSD 410-708902/3-B	Lab Control Sample Dup	134	132	125	96	82	103	99	97
LCSD 410-708902/3-B	Lab Control Sample Dup	125	96	96	86	98	94	102	97
MB 410-708902/1-B	Method Blank	103	111	105	89	85	99	97	100
MB 410-708902/1-B	Method Blank	97	93	93	82	99	87	94	90

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFPeA (15-162)	C8PFOA (27-160)	C8PFOS (22-172)	d3NMFOS (10-198)	d5NEFOS (10-200)	NMFM (10-181)	NEFM (10-182)	C3PFHS (11-180)
410-243791-1	DC-VS	102	107	110	109	104	47	51	120
410-243791-2	DC-SPOT-1	84	87	93	156	81	32	12	113
410-243791-3	DC-SPOT-2	68	75	82	119	125	51	13	88
LCS 410-708902/2-B	Lab Control Sample	93	102	99	106	102	51	51	117
LCS 410-708902/2-B	Lab Control Sample	91	87	98	96	103	41	40	97
LCSD 410-708902/3-B	Lab Control Sample Dup	93	102	102	101	102	51	57	115
LCSD 410-708902/3-B	Lab Control Sample Dup	93	91	102	98	115	47	47	98
MB 410-708902/1-B	Method Blank	92	103	104	99	97	48	49	118
MB 410-708902/1-B	Method Blank	90	93	99	95	102	40	42	98

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C5PHA (10-176)	C6PFDA (19-168)	13C7PUA (10-182)	d3NMFSA (10-137)	d5NPFSA (10-130)	PFOSA (10-149)	PFDoDA (10-183)	C9PFNA (10-198)
410-243791-1	DC-VS	95	106	95	15	15	72	92	101
410-243791-2	DC-SPOT-1	110	97	58	46	22	26	69	100
410-243791-3	DC-SPOT-2	115	74	63	61	25	36	52	114
LCS 410-708902/2-B	Lab Control Sample	89	93	91	16	15	65	97	88
LCS 410-708902/2-B	Lab Control Sample	85	95	86	16	14	57	81	100
LCSD 410-708902/3-B	Lab Control Sample Dup	91	95	94	16	16	72	90	92
LCSD 410-708902/3-B	Lab Control Sample Dup	91	102	97	17	18	67	92	101
MB 410-708902/1-B	Method Blank	90	97	94	14	12	64	89	92
MB 410-708902/1-B	Method Blank	92	95	92	14	14	58	83	103

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	MFHEA (10-185)
410-243791-1	DC-VS	93
410-243791-2	DC-SPOT-1	115
410-243791-3	DC-SPOT-2	135
LCS 410-708902/2-B	Lab Control Sample	90
LCS 410-708902/2-B	Lab Control Sample	77
LCSD 410-708902/3-B	Lab Control Sample Dup	90
LCSD 410-708902/3-B	Lab Control Sample Dup	84
MB 410-708902/1-B	Method Blank	94
MB 410-708902/1-B	Method Blank	84

Surrogate Legend

M242FTS = 13C2-4:2 FTS

M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
PFTDA = 13C2-PFTeDA
HFPODA = 13C3-HFPO-DA
C3PFBS = 13C3-PFBS
PFBA = 13C4-PFBA
C4PFHA = 13C4-PFHpA
PFPeA = 13C5-PFPeA
C8PFOA = 13C8-PFOA
C8PFOS = 13C8-PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
C3PFHS = 13C3-PFHxS
13C5PHA = 13C5-PFHxA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
PFOSA = 13C8-PFOSA
PFDoDA = 13C2-PFDoA
C9PFNA = 13C9-PFNA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(17-153)	(19-178)	(26-156)	(33-158)	(35-146)	(37-157)	(36-152)	(32-155)
LCS 410-708636/3-B	Lab Control Sample	91	93	93	98	127	89	89	87
LCSD 410-708636/4-B	Lab Control Sample Dup	89	91	93	102	135	92	92	89
MB 410-708636/2-B	Method Blank	89	91	86	95	126	83	85	88

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(23-149)	(17-149)	(20-198)	(35-165)	(41-155)	(20-142)		(28-188)
LCS 410-708636/3-B	Lab Control Sample	84	89	97	107	96	79		101
LCSD 410-708636/4-B	Lab Control Sample Dup	83	93	89	105	98	77		99
MB 410-708636/2-B	Method Blank	85	85	87	97	86	71		95

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA
Lab Sample ID	Client Sample ID		(25-189)	(28-192)	(26-161)	(10-155)	(10-147)	(10-130)	(10-130)
LCS 410-708636/3-B	Lab Control Sample		95	95	85	86	88	68	68
LCSD 410-708636/4-B	Lab Control Sample Dup		102	99	89	86	94	66	65
MB 410-708636/2-B	Method Blank		97	92	80	81	79	67	68

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		MFHEA							
Lab Sample ID	Client Sample ID	(18-186)							
LCS 410-708636/3-B	Lab Control Sample	116							
LCSD 410-708636/4-B	Lab Control Sample Dup	125							
MB 410-708636/2-B	Method Blank	108							

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (17-153)	PFPeA (19-178)	13C5PHA (26-156)	C4PFHA (33-158)	C8PFOA (35-146)	C9PFNA (37-157)	C6PFDA (36-152)	13C7PUA (32-155)
410-243791-1	DC-VS	86	95	76	54	120	86	84	83
410-243791-2	DC-SPOT-1	6 *5- cn	20 cn	76 cn	60 cn	119 cn	64 cn	98 cn	88 cn
410-243791-3	DC-SPOT-2	34 cn	84 cn	55 cn	58 cn	113 cn	80 cn	89 cn	64 cn

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoDA (23-149)	PFTDA (17-149)	C3PFBS (20-198)	C3PFHS (35-165)	C8PFOS (41-155)	PFOSA (20-142)	d5NEFOS (28-188)	M262FTS (25-189)
410-243791-1	DC-VS	93	90	108	70	91	74	102 cn	159 cn
410-243791-2	DC-SPOT-1	99 cn	5 *5- cn	101 cn	107 cn	90 cn	64 cn	108 cn	465 *5+ cn
410-243791-3	DC-SPOT-2	71 cn	90 cn	157 cn	98 cn	91 cn	63 cn	73 cn	483 *5+ cn

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	M282FTS (28-192)	HFPODA (26-161)	NMFM (10-155)	NEFM (10-147)	d5NPFSA (10-130)	d3NMFSA (10-130)	MFHEA (18-186)
410-243791-1	DC-VS	138 cn	73	80	76	57	61	76
410-243791-2	DC-SPOT-1	433 *5+ cn	63 cn	48 cn	30 cn	23 cn	78 cn	67 cn
410-243791-3	DC-SPOT-2	383 *5+ cn	68 cn	39 cn	32 cn	33 cn	55 cn	65 cn

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-243791-1
Project/Site: NC DSCA PFAS Pilot Study

C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-708902/1-B
Matrix: Water
Analysis Batch: 712038

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708902

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		10/03/25 14:34	10/10/25 11:15	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		10/03/25 14:34	10/10/25 11:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		10/03/25 14:34	10/10/25 11:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		10/03/25 14:34	10/10/25 11:15	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		10/03/25 14:34	10/10/25 11:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		10/03/25 14:34	10/10/25 11:15	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		10/03/25 14:34	10/10/25 11:15	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-708902/1-B
Matrix: Water
Analysis Batch: 712038

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708902

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		10/03/25 14:34	10/10/25 11:15	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*103*		*19 - 191*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C2-6:2 FTS	*111*		*13 - 200*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C2-8:2 FTS	*105*		*10 - 200*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C2-PFTeDA	*89*		*10 - 186*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C3-HFPO-DA	*85*		*10 - 140*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C3-PFBS	*99*		*24 - 176*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C4-PFBA	*97*		*26 - 162*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C4-PFHpA	*100*		*10 - 193*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C5-PFPeA	*92*		*15 - 162*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C8-PFOA	*103*		*27 - 160*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C8-PFOS	*104*		*22 - 172*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
d3-NMeFOSAA	*99*		*10 - 198*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
d5-NEtFOSAA	*97*		*10 - 200*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
d7-N-MeFOSE-M	*48*		*10 - 181*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
d9-N-EtFOSE-M	*49*		*10 - 182*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C3-PFHxS	*118*		*11 - 180*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C5-PFHxA	*90*		*10 - 176*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C6-PFDA	*97*		*19 - 168*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C7-PFUnA	*94*		*10 - 182*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
d3-NMePFOSA	*14*		*10 - 137*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
d5-NEtPFOSA	*12*		*10 - 130*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C8-PFOSA	*64*		*10 - 149*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C2-PFDoA	*89*		*10 - 183*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C9-PFNA	*92*		*10 - 198*	*10/03/25 14:34*	*10/10/25 11:15*	*1*
13C-6:2 FTCA	*94*		*10 - 185*	*10/03/25 14:34*	*10/10/25 11:15*	*1*

Lab Sample ID: MB 410-708902/1-B
Matrix: Water
Analysis Batch: 713050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708902

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2500	2100	ng/L		10/03/25 14:34	10/13/25 12:11	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1500	500	ng/L		10/03/25 14:34	10/13/25 12:11	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-708902/1-B
Matrix: Water
Analysis Batch: 713050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708902

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1500	500	ng/L		10/03/25 14:34	10/13/25 12:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1500	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		2500	500	ng/L		10/03/25 14:34	10/13/25 12:11	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1500	500	ng/L		10/03/25 14:34	10/13/25 12:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	300	ng/L		10/03/25 14:34	10/13/25 12:11	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1500	500	ng/L		10/03/25 14:34	10/13/25 12:11	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1500	500	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorobutanoic acid (PFBA)	ND		2500	1000	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorodecanoic acid (PFDA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorohexanoic acid (PFHxA)	ND		1000	450	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	350	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	500	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-708902/1-B
Matrix: Water
Analysis Batch: 713050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708902

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		10/03/25 14:34	10/13/25 12:11	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*97*		*19 - 191*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C2-6:2 FTS	*93*		*13 - 200*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C2-8:2 FTS	*93*		*10 - 200*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C2-PFTeDA	*82*		*10 - 186*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C3-HFPO-DA	*99*		*10 - 140*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C3-PFBS	*87*		*24 - 176*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C4-PFBA	*94*		*26 - 162*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C4-PFHpA	*90*		*10 - 193*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C5-PFPeA	*90*		*15 - 162*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C8-PFOA	*93*		*27 - 160*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C8-PFOS	*99*		*22 - 172*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
d3-NMeFOSAA	*95*		*10 - 198*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
d5-NEtFOSAA	*102*		*10 - 200*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
d7-N-MeFOSE-M	*40*		*10 - 181*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
d9-N-EtFOSE-M	*42*		*10 - 182*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C3-PFHxS	*98*		*11 - 180*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C5-PFHxA	*92*		*10 - 176*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C6-PFDA	*95*		*19 - 168*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C7-PFUnA	*92*		*10 - 182*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
d3-NMePFOSA	*14*		*10 - 137*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
d5-NEtPFOSA	*14*		*10 - 130*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C8-PFOSA	*58*		*10 - 149*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C2-PFDoA	*83*		*10 - 183*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C9-PFNA	*103*		*10 - 198*	*10/03/25 14:34*	*10/13/25 12:11*	*1*
13C-6:2 FTCA	*84*		*10 - 185*	*10/03/25 14:34*	*10/13/25 12:11*	*1*

Lab Sample ID: LCS 410-708902/2-B
Matrix: Water
Analysis Batch: 712038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4280		ng/L		71	61 - 131
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	4270		ng/L		71	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	4330		ng/L		71	58 - 136
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	3650		ng/L		59	57 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	4210		ng/L		70	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	4550		ng/L		75	55 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	3880		ng/L		61	50 - 137

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-708902/2-B
Matrix: Water
Analysis Batch: 712038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	4360		ng/L		68	53 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	4770		ng/L		75	59 - 137
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	4360		ng/L		68	59 - 135
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	4440		ng/L		69	54 - 131
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	5500		ng/L		86	61 - 134
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	4450		ng/L		70	58 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	4540		ng/L		80	56 - 130
Perfluorobutanoic acid (PFBA)	6400	5070		ng/L		79	54 - 144
Perfluorodecanesulfonic acid (PFDS)	6170	4740		ng/L		77	63 - 130
Perfluorodecanoic acid (PFDA)	6400	5260		ng/L		82	61 - 135
Perfluorododecanesulfonic acid (PFDoS)	6210	4420		ng/L		71	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	5190		ng/L		81	60 - 133
Perfluoroheptanesulfonic acid (PFHpS)	6110	4200		ng/L		69	51 - 132
Perfluoroheptanoic acid (PFHpA)	6400	5340		ng/L		83	54 - 133
Perfluorohexanesulfonic acid (PFHxS)	5840	3780		ng/L		65	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	4330		ng/L		68	55 - 132
Perfluorononanesulfonic acid (PFNS)	6160	4630		ng/L		75	65 - 136
Perfluorononanoic acid (PFNA)	6400	4850		ng/L		76	50 - 140
Perfluorooctanesulfonamide (PFOSA)	6400	5350		ng/L		84	62 - 136
Perfluorooctanesulfonic acid (PFOS)	5950	4370		ng/L		73	37 - 149
Perfluorooctanoic acid (PFOA)	6400	4440		ng/L		69	60 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	4600		ng/L		76	59 - 130
Perfluoropentanoic acid (PFPeA)	6400	4870		ng/L		76	59 - 133
Perfluorotetradecanoic acid (PFTeDA)	6400	4830		ng/L		75	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	5370		ng/L		84	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	5400		ng/L		84	58 - 133
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	5710	4290		ng/L		75	34 - 134
3-Perfluoropropylpropanoic acid (3:3 FTCA)	6400	3410		ng/L		53	10 - 155
Perfluoro-3-methoxypropanoic acid (PFMPA)	6400	4870		ng/L		76	53 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	6400	1550		ng/L		24	10 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6400	4360		ng/L		68	46 - 133

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-708902/2-B
Matrix: Water
Analysis Batch: 712038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoropentylpropanoic acid (5:3 FTCA)	6400	2880		ng/L		45	14 - 142
Perfluoro-4-methoxybutanoic acid (PFMBA)	6400	3850		ng/L		60	52 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2-4:2 FTS	*104*		*19 - 191*
13C2-6:2 FTS	*121*		*13 - 200*
13C2-8:2 FTS	*126*		*10 - 200*
13C2-PFTeDA	*99*		*10 - 186*
13C3-HFPO-DA	*86*		*10 - 140*
13C3-PFBS	*98*		*24 - 176*
13C4-PFBA	*96*		*26 - 162*
13C4-PFHpA	*96*		*10 - 193*
13C5-PFPeA	*93*		*15 - 162*
13C8-PFOA	*102*		*27 - 160*
13C8-PFOS	*99*		*22 - 172*
d3-NMeFOSAA	*106*		*10 - 198*
d5-NEtFOSAA	*102*		*10 - 200*
d7-N-MeFOSE-M	*51*		*10 - 181*
d9-N-EtFOSE-M	*51*		*10 - 182*
13C3-PFHxS	*117*		*11 - 180*
13C5-PFHxA	*89*		*10 - 176*
13C6-PFDA	*93*		*19 - 168*
13C7-PFUnA	*91*		*10 - 182*
d3-NMePFOSA	*16*		*10 - 137*
d5-NEtPFOSA	*15*		*10 - 130*
13C8-PFOSA	*65*		*10 - 149*
13C2-PFDoA	*97*		*10 - 183*
13C9-PFNA	*88*		*10 - 198*
13C-6:2 FTCA	*90*		*10 - 185*

Lab Sample ID: LCS 410-708902/2-B
Matrix: Water
Analysis Batch: 713050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4200		ng/L		70	61 - 131
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	4280		ng/L		71	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	4670		ng/L		77	58 - 136
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	4580		ng/L		75	57 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	4040		ng/L		68	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	4110		ng/L		68	55 - 130

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-708902/2-B
Matrix: Water
Analysis Batch: 713050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	4110		ng/L		64	50 - 137
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	4170		ng/L		65	53 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	5200		ng/L		81	59 - 137
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	4680		ng/L		73	59 - 135
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	4310		ng/L		67	54 - 131
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	4990		ng/L		78	61 - 134
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	4560		ng/L		71	58 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	4330		ng/L		76	56 - 130
Perfluorobutanoic acid (PFBA)	6400	4680		ng/L		73	54 - 144
Perfluorodecanesulfonic acid (PFDS)	6170	4620		ng/L		75	63 - 130
Perfluorodecanoic acid (PFDA)	6400	4660		ng/L		73	61 - 135
Perfluorododecanesulfonic acid (PFDoS)	6210	4070		ng/L		66	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	5090		ng/L		79	60 - 133
Perfluoroheptanesulfonic acid (PFHpS)	6110	4130		ng/L		68	51 - 132
Perfluoroheptanoic acid (PFHpA)	6400	4770		ng/L		75	54 - 133
Perfluorohexanesulfonic acid (PFHxS)	5840	4040		ng/L		69	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	5370		ng/L		84	55 - 132
Perfluorononanesulfonic acid (PFNS)	6160	4600		ng/L		75	65 - 136
Perfluorononanoic acid (PFNA)	6400	4600		ng/L		72	50 - 140
Perfluorooctanesulfonamide (PFOSA)	6400	4720		ng/L		74	62 - 136
Perfluorooctanesulfonic acid (PFOS)	5950	4320		ng/L		73	37 - 149
Perfluorooctanoic acid (PFOA)	6400	4420		ng/L		69	60 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	4370		ng/L		73	59 - 130
Perfluoropentanoic acid (PFPeA)	6400	4550		ng/L		71	59 - 133
Perfluorotetradecanoic acid (PFTeDA)	6400	5050		ng/L		79	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	5050		ng/L		79	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	4930		ng/L		77	58 - 133
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	5710	4310		ng/L		76	34 - 134
3-Perfluoropropylpropanoic acid (3:3 FTCA)	6400	7230		ng/L		113	10 - 155
Perfluoro-3-methoxypropanoic acid (PFMPA)	6400	4690		ng/L		73	53 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	6400	1570		ng/L		25	10 - 150

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-708902/2-B
Matrix: Water
Analysis Batch: 713050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6400	4860		ng/L		76	46 - 133
3-Perfluoropentylpropanoic acid (5:3 FTCA)	6400	3080		ng/L		48	14 - 142
Perfluoro-4-methoxybutanoic acid (PFMBA)	6400	4500		ng/L		70	52 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2-4:2 FTS	*98*		*19 - 191*
13C2-6:2 FTS	*93*		*13 - 200*
13C2-8:2 FTS	*88*		*10 - 200*
13C2-PFTeDA	*80*		*10 - 186*
13C3-HFPO-DA	*96*		*10 - 140*
13C3-PFBS	*87*		*24 - 176*
13C4-PFBA	*98*		*26 - 162*
13C4-PFHpA	*94*		*10 - 193*
13C5-PFPeA	*91*		*15 - 162*
13C8-PFOA	*87*		*27 - 160*
13C8-PFOS	*98*		*22 - 172*
d3-NMeFOSAA	*96*		*10 - 198*
d5-NEtFOSAA	*103*		*10 - 200*
d7-N-MeFOSE-M	*41*		*10 - 181*
d9-N-EtFOSE-M	*40*		*10 - 182*
13C3-PFHxS	*97*		*11 - 180*
13C5-PFHxA	*85*		*10 - 176*
13C6-PFDA	*95*		*19 - 168*
13C7-PFUnA	*86*		*10 - 182*
d3-NMePFOSA	*16*		*10 - 137*
d5-NEtPFOSA	*14*		*10 - 130*
13C8-PFOSA	*57*		*10 - 149*
13C2-PFDoA	*81*		*10 - 183*
13C9-PFNA	*100*		*10 - 198*
13C-6:2 FTCA	*77*		*10 - 185*

Lab Sample ID: LCSD 410-708902/3-B
Matrix: Water
Analysis Batch: 712038

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708902

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	4530		ng/L		75	61 - 131	6	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	4730		ng/L		79	57 - 130	10	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	4840		ng/L		79	58 - 136	11	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	4100		ng/L		67	57 - 134	12	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	4490		ng/L		75	59 - 130	6	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-708902/3-B
Matrix: Water
Analysis Batch: 712038

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708902

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,8-Dioxa-3H-perfluorononanoic acid (DONA)			6050	4860		ng/L		80	55 - 130	7	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			6400	4390		ng/L		69	50 - 137	12	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			6400	4990		ng/L		78	53 - 130	13	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			6400	5390		ng/L		84	59 - 137	12	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			6400	4720		ng/L		74	59 - 135	8	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			6400	5240		ng/L		82	54 - 131	17	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			6400	6060		ng/L		95	61 - 134	10	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			6400	4870		ng/L		76	58 - 130	9	30
Perfluorobutanesulfonic acid (PFBS)			5680	4920		ng/L		86	56 - 130	8	30
Perfluorobutanoic acid (PFBA)			6400	5480		ng/L		86	54 - 144	8	30
Perfluorodecanesulfonic acid (PFDS)			6170	5060		ng/L		82	63 - 130	7	30
Perfluorodecanoic acid (PFDA)			6400	5630		ng/L		88	61 - 135	7	30
Perfluorododecanesulfonic acid (PFDoS)			6210	4850		ng/L		78	59 - 130	9	30
Perfluorododecanoic acid (PFDoA)			6400	5970		ng/L		93	60 - 133	14	30
Perfluoroheptanesulfonic acid (PFHpS)			6110	4980		ng/L		82	51 - 132	17	30
Perfluoroheptanoic acid (PFHpA)			6400	5970		ng/L		93	54 - 133	11	30
Perfluorohexanesulfonic acid (PFHxS)			5840	4610		ng/L		79	56 - 130	20	30
Perfluorohexanoic acid (PFHxA)			6400	5030		ng/L		79	55 - 132	15	30
Perfluorononanesulfonic acid (PFNS)			6160	4750		ng/L		77	65 - 136	3	30
Perfluorononanoic acid (PFNA)			6400	5050		ng/L		79	50 - 140	4	30
Perfluorooctanesulfonamide (PFOSA)			6400	5400		ng/L		84	62 - 136	1	30
Perfluorooctanesulfonic acid (PFOS)			5950	4820		ng/L		81	37 - 149	10	30
Perfluorooctanoic acid (PFOA)			6400	4880		ng/L		76	60 - 130	9	30
Perfluoropentanesulfonic acid (PFPeS)			6020	5300		ng/L		88	59 - 130	14	30
Perfluoropentanoic acid (PFPeA)			6400	5710		ng/L		89	59 - 133	16	30
Perfluorotetradecanoic acid (PFTeDA)			6400	5190		ng/L		81	62 - 130	7	30
Perfluorotridecanoic acid (PFTrDA)			6400	5900		ng/L		92	53 - 133	9	30
Perfluoroundecanoic acid (PFUnA)			6400	5750		ng/L		90	58 - 133	6	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4580		ng/L		80	34 - 134	6	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	3710		ng/L		58	10 - 155	8	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	5070		ng/L		79	53 - 135	4	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-708902/3-B
Matrix: Water
Analysis Batch: 712038

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708902

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	1950		ng/L		30	10 - 150	23	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	4910		ng/L		77	46 - 133	12	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	3270		ng/L		51	14 - 142	13	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	4210		ng/L		66	52 - 130	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2-4:2 FTS	*134*		*19 - 191*
13C2-6:2 FTS	*132*		*13 - 200*
13C2-8:2 FTS	*125*		*10 - 200*
13C2-PFTeDA	*96*		*10 - 186*
13C3-HFPO-DA	*82*		*10 - 140*
13C3-PFBS	*103*		*24 - 176*
13C4-PFBA	*99*		*26 - 162*
13C4-PFHpA	*97*		*10 - 193*
13C5-PFPeA	*93*		*15 - 162*
13C8-PFOA	*102*		*27 - 160*
13C8-PFOS	*102*		*22 - 172*
d3-NMeFOSAA	*101*		*10 - 198*
d5-NEtFOSAA	*102*		*10 - 200*
d7-N-MeFOSE-M	*51*		*10 - 181*
d9-N-EtFOSE-M	*57*		*10 - 182*
13C3-PFHxS	*115*		*11 - 180*
13C5-PFHxA	*91*		*10 - 176*
13C6-PFDA	*95*		*19 - 168*
13C7-PFUnA	*94*		*10 - 182*
d3-NMePFOSA	*16*		*10 - 137*
d5-NEtPFOSA	*16*		*10 - 130*
13C8-PFOSA	*72*		*10 - 149*
13C2-PFDoA	*90*		*10 - 183*
13C9-PFNA	*92*		*10 - 198*
13C-6:2 FTCA	*90*		*10 - 185*

Lab Sample ID: LCSD 410-708902/3-B
Matrix: Water
Analysis Batch: 713050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708902

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	4920		ng/L		81	61 - 131	16	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			6000	4830		ng/L		80	57 - 130	12	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			6090	5140		ng/L		84	58 - 136	10	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			6140	4910		ng/L		80	57 - 134	7	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-708902/3-B
Matrix: Water
Analysis Batch: 713050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708902

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			5980	4780		ng/L		80	59 - 130	17	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)			6050	4600		ng/L		76	55 - 130	11	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			6400	4970		ng/L		78	50 - 137	19	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			6400	4590		ng/L		72	53 - 130	10	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			6400	4760		ng/L		74	59 - 137	9	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			6400	4950		ng/L		77	59 - 135	6	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			6400	5130		ng/L		80	54 - 131	18	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			6400	6230		ng/L		97	61 - 134	22	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			6400	4870		ng/L		76	58 - 130	7	30
Perfluorobutanesulfonic acid (PFBS)			5680	4800		ng/L		85	56 - 130	10	30
Perfluorobutanoic acid (PFBA)			6400	5410		ng/L		85	54 - 144	15	30
Perfluorodecanesulfonic acid (PFDS)			6170	5260		ng/L		85	63 - 130	13	30
Perfluorodecanoic acid (PFDA)			6400	5360		ng/L		84	61 - 135	14	30
Perfluorododecanesulfonic acid (PFDoS)			6210	4380		ng/L		71	59 - 130	7	30
Perfluorododecanoic acid (PFDoA)			6400	5670		ng/L		89	60 - 133	11	30
Perfluoroheptanesulfonic acid (PFHpS)			6110	4720		ng/L		77	51 - 132	13	30
Perfluoroheptanoic acid (PFHpA)			6400	5170		ng/L		81	54 - 133	8	30
Perfluorohexanesulfonic acid (PFHxS)			5840	4570		ng/L		78	56 - 130	12	30
Perfluorohexanoic acid (PFHxA)			6400	5590		ng/L		87	55 - 132	4	30
Perfluorononanesulfonic acid (PFNS)			6160	5510		ng/L		89	65 - 136	18	30
Perfluorononanoic acid (PFNA)			6400	5430		ng/L		85	50 - 140	16	30
Perfluorooctanesulfonamide (PFOSA)			6400	5270		ng/L		82	62 - 136	11	30
Perfluorooctanesulfonic acid (PFOS)			5950	4840		ng/L		81	37 - 149	11	30
Perfluorooctanoic acid (PFOA)			6400	4910		ng/L		77	60 - 130	11	30
Perfluoropentanesulfonic acid (PFPeS)			6020	4730		ng/L		79	59 - 130	8	30
Perfluoropentanoic acid (PFPeA)			6400	5080		ng/L		79	59 - 133	11	30
Perfluorotetradecanoic acid (PFTeDA)			6400	5300		ng/L		83	62 - 130	5	30
Perfluorotridecanoic acid (PFTrDA)			6400	5450		ng/L		85	53 - 133	8	30
Perfluoroundecanoic acid (PFUnA)			6400	5500		ng/L		86	58 - 133	11	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	4630		ng/L		81	34 - 134	7	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-708902/3-B
Matrix: Water
Analysis Batch: 713050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708902

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	8190		ng/L		128	10 - 155	13	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	4700		ng/L		73	53 - 135	0	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	1850		ng/L		29	10 - 150	17	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	5330		ng/L		83	46 - 133	9	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	3480		ng/L		54	14 - 142	12	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	4920		ng/L		77	52 - 130	9	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2-4:2 FTS	*125*		*19 - 191*
13C2-6:2 FTS	*96*		*13 - 200*
13C2-8:2 FTS	*96*		*10 - 200*
13C2-PFTeDA	*86*		*10 - 186*
13C3-HFPO-DA	*98*		*10 - 140*
13C3-PFBS	*94*		*24 - 176*
13C4-PFBA	*102*		*26 - 162*
13C4-PFHpA	*97*		*10 - 193*
13C5-PFPeA	*93*		*15 - 162*
13C8-PFOA	*91*		*27 - 160*
13C8-PFOS	*102*		*22 - 172*
d3-NMeFOSAA	*98*		*10 - 198*
d5-NEtFOSAA	*115*		*10 - 200*
d7-N-MeFOSE-M	*47*		*10 - 181*
d9-N-EtFOSE-M	*47*		*10 - 182*
13C3-PFHxS	*98*		*11 - 180*
13C5-PFHxA	*91*		*10 - 176*
13C6-PFDA	*102*		*19 - 168*
13C7-PFUnA	*97*		*10 - 182*
d3-NMePFOSA	*17*		*10 - 137*
d5-NEtPFOSA	*18*		*10 - 130*
13C8-PFOSA	*67*		*10 - 149*
13C2-PFDoA	*92*		*10 - 183*
13C9-PFNA	*101*		*10 - 198*
13C-6:2 FTCA	*84*		*10 - 185*

Method: 537 TOP - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-708636/2-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoropentanoic acid (PFPeA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorohexanoic acid (PFHxA)	ND		1000	500	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoroheptanoic acid (PFHpA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-708636/2-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorononanoic acid (PFNA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorodecanoic acid (PFDA)	333	J	1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoroundecanoic acid (PFUnA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorododecanoic acid (PFDoA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorotridecanoic acid (PFTrDA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorobutanesulfonic acid (PFBS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorooctanesulfonic acid (PFOS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorononanesulfonic acid (PFNS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 04:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		1000	300	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluorooctanesulfonamide (PFOSA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	ND		1000	350	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1000	800	ng/L		10/03/25 07:57	10/12/25 04:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-708636/2-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Perfluoropropylpropanoic acid (3:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	ND		1000	250	ng/L		10/03/25 07:57	10/12/25 04:24	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	ND		1000	550	ng/L		10/03/25 07:57	10/12/25 04:24	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*89*		*17 - 153*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C5 PFPeA	*91*		*19 - 178*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C5 PFHxA	*86*		*26 - 156*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C4 PFHpA	*95*		*33 - 158*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C8 PFOA	*126*		*35 - 146*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C9 PFNA	*83*		*37 - 157*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C6 PFDA	*85*		*36 - 152*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C7 PFUnA	*88*		*32 - 155*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C2-PFDoDA	*85*		*23 - 149*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C2 PFTeDA	*85*		*17 - 149*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C3 PFBS	*87*		*20 - 198*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C3 PFHxS	*97*		*35 - 165*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C8 PFOS	*86*		*41 - 155*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C8 FOSA	*71*		*20 - 142*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d5-NEtFOSAA	*95*		*28 - 188*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
M2-6:2 FTS	*97*		*25 - 189*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
M2-8:2 FTS	*92*		*28 - 192*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C3 HFPO-DA	*80*		*26 - 161*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d7-N-MeFOSE-M	*81*		*10 - 155*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d9-N-EtFOSE-M	*79*		*10 - 147*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d5-NEtPFOSA	*67*		*10 - 130*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
d3-NMePFOSA	*68*		*10 - 130*	*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C-6:2 FTCA	*108*		*18 - 186*	*10/03/25 07:57*	*10/12/25 04:24*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA				*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C2 PFUnA				*10/03/25 07:57*	*10/12/25 04:24*	*1*
13C4 PFOA				*10/03/25 07:57*	*10/12/25 04:24*	*1*

Lab Sample ID: LCS 410-708636/3-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12800	14000		ng/L		110	57 - 148
Perfluoropentanoic acid (PFPeA)	12800	14100		ng/L		110	58 - 135
Perfluorohexanoic acid (PFHxA)	12800	12300		ng/L		96	51 - 150
Perfluoroheptanoic acid (PFHpA)	12800	13900		ng/L		109	55 - 145
Perfluorooctanoic acid (PFOA)	12800	8580		ng/L		67	53 - 147
Perfluorononanoic acid (PFNA)	12800	14000		ng/L		110	52 - 143
Perfluorodecanoic acid (PFDA)	12800	14600		ng/L		114	57 - 140

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-708636/3-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	12800	14300		ng/L		112	55 - 142
Perfluorododecanoic acid (PFDoA)	12800	15200		ng/L		119	62 - 146
Perfluorotridecanoic acid (PFTrDA)	12800	16100		ng/L		126	55 - 160
Perfluorotetradecanoic acid (PFTeDA)	12800	14500		ng/L		113	58 - 149
Perfluorobutanesulfonic acid (PFBS)	11400	12700		ng/L		111	54 - 145
Perfluoropentanesulfonic acid (PFPeS)	12000	13300		ng/L		110	54 - 148
Perfluorohexanesulfonic acid (PFHxS)	11700	11400		ng/L		98	52 - 138
Perfluoroheptanesulfonic acid (PFHpS)	12200	12000		ng/L		99	51 - 141
Perfluorooctanesulfonic acid (PFOS)	11900	11600		ng/L		98	52 - 139
Perfluorononanesulfonic acid (PFNS)	12300	12800		ng/L		104	52 - 146
Perfluorodecanesulfonic acid (PFDS)	12300	13600		ng/L		110	52 - 145
Perfluorododecanesulfonic acid (PFDoS)	12400	13600		ng/L		109	51 - 147
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	15100		ng/L		126	55 - 136
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	15300		ng/L		125	53 - 137
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	12100		ng/L		99	54 - 145
Perfluorooctanesulfonamide (PFOSA)	12800	13100		ng/L		103	57 - 143
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	13500		ng/L		105	53 - 149
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	13200		ng/L		103	53 - 146
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	13000		ng/L		102	53 - 132
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	12300		ng/L		96	50 - 135
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	13200		ng/L		103	56 - 132
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	11900		ng/L		93	58 - 133
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	10200		ng/L		80	50 - 132
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	11100		ng/L		91	55 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	16900		ng/L		132	54 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	11100		ng/L		86	54 - 141
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	12800	12400		ng/L		97	51 - 137

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-708636/3-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	12400		ng/L		104	52 - 140		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	12500		ng/L		103	51 - 137		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	12000		ng/L		105	46 - 143		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	12600		ng/L		99	42 - 148		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	11900		ng/L		93	41 - 149		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	11200		ng/L		87	33 - 142		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*91*		*17 - 153*
13C5 PFPeA	*93*		*19 - 178*
13C5 PFHxA	*93*		*26 - 156*
13C4 PFHpA	*98*		*33 - 158*
13C8 PFOA	*127*		*35 - 146*
13C9 PFNA	*89*		*37 - 157*
13C6 PFDA	*89*		*36 - 152*
13C7 PFUnA	*87*		*32 - 155*
13C2-PFDoDA	*84*		*23 - 149*
13C2 PFTeDA	*89*		*17 - 149*
13C3 PFBS	*97*		*20 - 198*
13C3 PFHxS	*107*		*35 - 165*
13C8 PFOS	*96*		*41 - 155*
13C8 FOSA	*79*		*20 - 142*
d5-NEtFOSAA	*101*		*28 - 188*
M2-6:2 FTS	*95*		*25 - 189*
M2-8:2 FTS	*95*		*28 - 192*
13C3 HFPO-DA	*85*		*26 - 161*
d7-N-MeFOSE-M	*86*		*10 - 155*
d9-N-EtFOSE-M	*88*		*10 - 147*
d5-NEtPFOSA	*68*		*10 - 130*
d3-NMePFOSA	*68*		*10 - 130*
13C-6:2 FTCA	*116*		*18 - 186*

Lab Sample ID: LCSD 410-708636/4-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			12800	13700		ng/L		107	57 - 148	2	30
Perfluoropentanoic acid (PFPeA)			12800	13000		ng/L		102	58 - 135	8	30
Perfluorohexanoic acid (PFHxA)			12800	11900		ng/L		93	51 - 150	3	30
Perfluoroheptanoic acid (PFHpA)			12800	13100		ng/L		102	55 - 145	6	30
Perfluorooctanoic acid (PFOA)			12800	8760		ng/L		68	53 - 147	2	30
Perfluorononanoic acid (PFNA)			12800	13700		ng/L		107	52 - 143	2	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-708636/4-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708636

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorodecanoic acid (PFDA)	12800	13900		ng/L		108	57 - 140	5	30
Perfluoroundecanoic acid (PFUnA)	12800	13900		ng/L		109	55 - 142	3	30
Perfluorododecanoic acid (PFDoA)	12800	15100		ng/L		118	62 - 146	1	30
Perfluorotridecanoic acid (PFTrDA)	12800	15900		ng/L		124	55 - 160	1	30
Perfluorotetradecanoic acid (PFTeDA)	12800	13800		ng/L		108	58 - 149	4	30
Perfluorobutanesulfonic acid (PFBS)	11400	12100		ng/L		106	54 - 145	5	30
Perfluoropentanesulfonic acid (PFPeS)	12000	13100		ng/L		109	54 - 148	1	30
Perfluorohexanesulfonic acid (PFHxS)	11700	11500		ng/L		98	52 - 138	0	30
Perfluoroheptanesulfonic acid (PFHpS)	12200	12000		ng/L		98	51 - 141	0	30
Perfluorooctanesulfonic acid (PFOS)	11900	11900		ng/L		100	52 - 139	2	30
Perfluorononanesulfonic acid (PFNS)	12300	12800		ng/L		104	52 - 146	0	30
Perfluorodecanesulfonic acid (PFDS)	12300	12900		ng/L		104	52 - 145	5	30
Perfluorododecanesulfonic acid (PFDoS)	12400	13300		ng/L		107	51 - 147	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	13400		ng/L		112	55 - 136	12	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	12900		ng/L		106	53 - 137	17	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	11200		ng/L		91	54 - 145	8	30
Perfluorooctanesulfonamide (PFOSA)	12800	13900		ng/L		108	57 - 143	5	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	13800		ng/L		108	53 - 149	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	12600		ng/L		99	53 - 146	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	13200		ng/L		103	53 - 132	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	12700		ng/L		99	50 - 135	3	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	12000		ng/L		94	56 - 132	9	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	11100		ng/L		87	58 - 133	7	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	9740		ng/L		76	50 - 132	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	10400		ng/L		86	55 - 144	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	13800		ng/L		108	54 - 150	20	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	11500		ng/L		90	54 - 141	4	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	12800	12500		ng/L		97	51 - 137	0	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-708636/4-B
Matrix: Water
Analysis Batch: 712655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 708636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)			12000	12300		ng/L		103	52 - 140	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	12400		ng/L		103	51 - 137	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	12000		ng/L		105	46 - 143	0	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	12500		ng/L		97	42 - 148	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	11100		ng/L		87	41 - 149	7	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	10700		ng/L		83	33 - 142	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*89*		*17 - 153*
13C5 PFPeA	*91*		*19 - 178*
13C5 PFHxA	*93*		*26 - 156*
13C4 PFHpA	*102*		*33 - 158*
13C8 PFOA	*135*		*35 - 146*
13C9 PFNA	*92*		*37 - 157*
13C6 PFDA	*92*		*36 - 152*
13C7 PFUnA	*89*		*32 - 155*
13C2-PFDoDA	*83*		*23 - 149*
13C2 PFTeDA	*93*		*17 - 149*
13C3 PFBS	*89*		*20 - 198*
13C3 PFHxS	*105*		*35 - 165*
13C8 PFOS	*98*		*41 - 155*
13C8 FOSA	*77*		*20 - 142*
d5-NEtFOSAA	*99*		*28 - 188*
M2-6:2 FTS	*102*		*25 - 189*
M2-8:2 FTS	*99*		*28 - 192*
13C3 HFPO-DA	*89*		*26 - 161*
d7-N-MeFOSE-M	*86*		*10 - 155*
d9-N-EtFOSE-M	*94*		*10 - 147*
d5-NEtPFOSA	*66*		*10 - 130*
d3-NMePFOSA	*65*		*10 - 130*
13C-6:2 FTCA	*125*		*18 - 186*

LCMS

Prep Batch: 708636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-243791-1	DC-VS	Post-Treatment	Water	TOP Post Prep	
410-243791-2 - RA	DC-SPOT-1	Post-Treatment	Water	TOP Post Prep	
410-243791-2	DC-SPOT-1	Post-Treatment	Water	TOP Post Prep	
410-243791-3 - RA	DC-SPOT-2	Post-Treatment	Water	TOP Post Prep	
410-243791-3	DC-SPOT-2	Post-Treatment	Water	TOP Post Prep	
MB 410-708636/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-708636/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-708636/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-708636/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Prep Batch: 708902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-243791-1	DC-VS	Total/NA	Water	EPA 537 (Mod)	
410-243791-2	DC-SPOT-1	Total/NA	Water	EPA 537 (Mod)	
410-243791-3	DC-SPOT-2	Total/NA	Water	EPA 537 (Mod)	
MB 410-708902/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-708902/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-708902/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 709577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-243791-1	DC-VS	Post-Treatment	Water	Extract Aliquot	708636
410-243791-2 - RA	DC-SPOT-1	Post-Treatment	Water	Extract Aliquot	708636
410-243791-2	DC-SPOT-1	Post-Treatment	Water	Extract Aliquot	708636
410-243791-3 - RA	DC-SPOT-2	Post-Treatment	Water	Extract Aliquot	708636
410-243791-3	DC-SPOT-2	Post-Treatment	Water	Extract Aliquot	708636
MB 410-708636/1-B	Method Blank	Total/NA	Water	Extract Aliquot	708636
MB 410-708636/2-B	Method Blank	Total/NA	Water	Extract Aliquot	708636
LCS 410-708636/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	708636
LCSD 410-708636/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	708636

Cleanup Batch: 711117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-243791-1	DC-VS	Total/NA	Water	Extract Aliquot	708902
410-243791-2	DC-SPOT-1	Total/NA	Water	Extract Aliquot	708902
410-243791-3	DC-SPOT-2	Total/NA	Water	Extract Aliquot	708902
MB 410-708902/1-B	Method Blank	Total/NA	Water	Extract Aliquot	708902
LCS 410-708902/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	708902
LCSD 410-708902/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	708902

Analysis Batch: 712038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-243791-1	DC-VS	Total/NA	Water	537 IDA	711117
MB 410-708902/1-B	Method Blank	Total/NA	Water	537 IDA	711117
LCS 410-708902/2-B	Lab Control Sample	Total/NA	Water	537 IDA	711117
LCSD 410-708902/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	711117

Analysis Batch: 712655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-243791-1	DC-VS	Post-Treatment	Water	537 TOP	709577
410-243791-2	DC-SPOT-1	Post-Treatment	Water	537 TOP	709577

LCMS (Continued)

Analysis Batch: 712655 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-243791-3	DC-SPOT-2	Post-Treatment	Water	537 TOP	709577
MB 410-708636/1-B	Method Blank	Total/NA	Water	537 TOP	709577
MB 410-708636/2-B	Method Blank	Total/NA	Water	537 TOP	709577
LCS 410-708636/3-B	Lab Control Sample	Total/NA	Water	537 TOP	709577
LCSD 410-708636/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	709577

Analysis Batch: 713050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-243791-2	DC-SPOT-1	Total/NA	Water	537 IDA	711117
410-243791-3	DC-SPOT-2	Total/NA	Water	537 IDA	711117
MB 410-708902/1-B	Method Blank	Total/NA	Water	537 IDA	711117
LCS 410-708902/2-B	Lab Control Sample	Total/NA	Water	537 IDA	711117
LCSD 410-708902/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	711117

Analysis Batch: 713966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-243791-2 - RA	DC-SPOT-1	Post-Treatment	Water	537 TOP	709577
410-243791-3 - RA	DC-SPOT-2	Post-Treatment	Water	537 TOP	709577

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-243791-1

Client Sample ID: DC-VS

Lab Sample ID: 410-243791-1

Date Collected: 09/23/25 15:30
Matrix: Water
Date Received: 09/25/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			708902	VT5U	ELLE	10/03/25 14:34
Total/NA	Cleanup	Extract Aliquot			711117	WHU6	ELLE	10/08/25 18:56
Total/NA	Analysis	537 IDA		1	712038	MC7V	ELLE	10/10/25 17:02
Post-Treatment	Prep	TOP Post Prep			708636	S7AC	ELLE	10/03/25 07:57
Post-Treatment	Cleanup	Extract Aliquot			709577	S7AC	ELLE	10/06/25 10:42
Post-Treatment	Analysis	537 TOP		1	712655	QD9Y	ELLE	10/12/25 05:31

Client Sample ID: DC-SPOT-1

Lab Sample ID: 410-243791-2

Date Collected: 09/23/25 15:45
Matrix: Water
Date Received: 09/25/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			708902	VT5U	ELLE	10/03/25 14:34
Total/NA	Cleanup	Extract Aliquot			711117	WHU6	ELLE	10/08/25 18:56
Total/NA	Analysis	537 IDA		1	713050	DSU6	ELLE	10/13/25 13:13
Post-Treatment	Prep	TOP Post Prep			708636	S7AC	ELLE	10/03/25 07:57
Post-Treatment	Cleanup	Extract Aliquot			709577	S7AC	ELLE	10/06/25 10:42
Post-Treatment	Analysis	537 TOP		1	712655	QD9Y	ELLE	10/12/25 05:45
Post-Treatment	Prep	TOP Post Prep	RA		708636	S7AC	ELLE	10/03/25 07:57
Post-Treatment	Cleanup	Extract Aliquot	RA		709577	S7AC	ELLE	10/06/25 10:42
Post-Treatment	Analysis	537 TOP	RA	1	713966	QD9Y	ELLE	10/15/25 11:45

Client Sample ID: DC-SPOT-2

Lab Sample ID: 410-243791-3

Date Collected: 09/23/25 16:00
Matrix: Water
Date Received: 09/25/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			708902	VT5U	ELLE	10/03/25 14:34
Total/NA	Cleanup	Extract Aliquot			711117	WHU6	ELLE	10/08/25 18:56
Total/NA	Analysis	537 IDA		1	713050	DSU6	ELLE	10/13/25 13:28
Post-Treatment	Prep	TOP Post Prep			708636	S7AC	ELLE	10/03/25 07:57
Post-Treatment	Cleanup	Extract Aliquot			709577	S7AC	ELLE	10/06/25 10:42
Post-Treatment	Analysis	537 TOP		1	712655	QD9Y	ELLE	10/12/25 05:59
Post-Treatment	Prep	TOP Post Prep	RA		708636	S7AC	ELLE	10/03/25 07:57
Post-Treatment	Cleanup	Extract Aliquot	RA		709577	S7AC	ELLE	10/06/25 10:42
Post-Treatment	Analysis	537 TOP	RA	1	713966	QD9Y	ELLE	10/15/25 11:59

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-243791-1
Project/Site: NC DSCA PFAS Pilot Study

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	EPA 537 (Mod)	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	EPA 537 (Mod)	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	EPA 537 (Mod)	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid (PFBS)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid (PFBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid (PFDS)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid (PFDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid (PFDoA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid (PFHpA)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid (PFHxA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid (PFNS)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid (PFNA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide (PFOSA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid (PFOS)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid (PFOA)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid (PFPeA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid (PFTrDA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid (PFUnA)
537 TOP	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Job ID: 410-243791-1
Project/Site: NC DSCA PFAS Pilot Study

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-243791-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 TOP	Fluorinated Alkyl Substances	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: NC DSCA PFAS Pilot Study

Job ID: 410-243791-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-243791-1	DC-VS	Water	09/23/25 15:30	09/25/25 09:50	North Carolina
410-243791-2	DC-SPOT-1	Water	09/23/25 15:45	09/25/25 09:50	North Carolina
410-243791-3	DC-SPOT-2	Water	09/23/25 16:00	09/25/25 09:50	North Carolina

Eurofins Lancaster Laboratories
2425 New Holland Pike
Landcaster, PA 17601
Phone: (717) 656-2300 Fax: (717) 658-2681

Chain of Custody Record

410-243791 Chain of Custody

eurofins | Environment Testing America

Client Information	Sampler: SQM	Lab PM: Gallagher, Kelly	COC No: 410-159585-44129.5
Client Contact: Sam Martin	Phone: (704) 586-0007	E-Mail: kelly.gallagher@et.eurofinsus.com	State of Origin: North Carolina	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:		Job #: DS0.PFAS
Address: 2923 S Tryon Street Suite 100	Due Date Requested:		
City: Charlotte	TAT Requested (business days): 10 Business Days		
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No		
Phone: 704-586-0007	H&H PO #: DS0.PFAS		
Email: smartin@harthickman.com	WO #:		
Project Name:	Lab Project #: 41025876		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537 Mod_List of 40 based on EPA method	TOPS (Post)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC-VS	9/23/25	15:30	G	Water	N	N	X	X	5	*Please report J Flags and report
DC-SPOT-1	9/23/25	15:45	G	Water	N	N	X	X	5	non-detects as < MDLs
DC-SPOT-2	9/23/25	16:00	G	Water	N	N	X	X	5	*EDD formats: H&H, DSCA, NCDEQ
										*samples -VS and -SPOT have high
										levels of solvent/concentrated

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		9/24 /1630	H+H			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 09/25/25 0950	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: R: 3.8 C: 3.7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-243791-1

Login Number: 243791
List Number: 1
Creator: Arroyo, Haley

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Sam Martin
Hart & Hickman, PC
2923 S Tryon Street
Suite 100
Charlotte, North Carolina 28203

Generated 1/19/2026 1:28:33 PM

JOB DESCRIPTION

DS0.PFAS

JOB NUMBER

410-256929-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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1/19/2026 1:28:33 PM

Authorized for release by
David Barnhart, Senior Project Manager
David.Barnhart@et.eurofinsus.com
(717)656-2300

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: Hart & Hickman, PC
Job ID: 410-256929-1
Project/Site: DS0.PFAS

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-256929-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 12/10/2025 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C.

PFAS
Method 537_IDA_TOPS - Post-Treatment: The recoveries for 13C8 PFOA, M2-6:2 FTS and M2-8:2 FTS in DC-SPOT-4 (410-256929-2) are above the QC acceptance limits. Since the recoveries are high and the native analytes are not detected in the sample, the data are reported.

Method 537_IDA_TOPS - Post-Treatment: The recoveries for 13C8 PFOA, 13C7 PFUnA, 13C2-PFDoDA, 13C2 PFTeDA, d5-NEtFOSAA, M2-6:2 FTS, d7-N-MeFOSE-M, d9-N-EtFOSE-M, d5-NEtPFOSA, d3-NMePFOSA and 13C2 PFUnA in DC-DET-1 (410-256929-3) are outside the QC acceptance limits due to the matrix of the sample.

Method 537_IDA_TOPS - Post-Treatment: The recoveries for 13C4 PFBA, 13C6 PFDA, 13C7 PFUnA, d5-NEtFOSAA, d7-N-MeFOSE-M, d9-N-EtFOSE-M, d5-NEtPFOSA, d3-NMePFOSA and 13C2 PFUnA in DC-SPOT-3 (410-256929-1) are below the QC acceptance limits due to the matrix of the sample.

Method PFC_IDA: Sample injection standard peak areas in DC-SPOT-3 (410-256929-1) and DC-DET-1 (410-256929-3) are below the QC acceptance limit for both the full volume injections and the diluted injections. The values here are from the diluted injections of the samples.

Method PFC_IDA: The recoveries for 13C2-6:2 FTS, d7-N-MeFOSE-M, d9-N-EtFOSE-M, d3-NMePFOSA, d5-NEtPFOSA and 13C2-PFDoA in DC-SPOT-3 (410-256929-1) are outside the QC acceptance limits due to the matrix of the sample.

Method PFC_IDA: The recoveries for d7-N-MeFOSE-M, d3-NMePFOSA, 13C2-PFDoA and 13C-6:2 FTCA in DC-SPOT-4 (410-256929-2) are outside the QC acceptance limits due to the matrix of the sample.

Method PFC_IDA: The recoveries for 13C2-6:2 FTS, 13C2-PFTeDA, d5-NEtFOSAA, d7-N-MeFOSE-M, d9-N-EtFOSE-M, d3-NMePFOSA, d5-NEtPFOSA and 13C2-PFDoA in DC-DET-1 (410-256929-3) are outside the QC acceptance limits due to the matrix of the sample.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Client Sample ID: DC-SPOT-3 — Lab Sample ID: 410-256929-1

No Detections.

Client Sample ID: DC-SPOT-4 — Lab Sample ID: 410-256929-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	7700	J	10000	2500	ng/L	10		537 TOP	Post-Treatment

Client Sample ID: DC-DET-1 — Lab Sample ID: 410-256929-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	4300	J	10000	2500	ng/L	10		537 TOP	Post-Treatment

This Detection Summary does not include radiochemical test results.

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Client Sample ID: DC-SPOT-3
Date Collected: 12/09/25 14:30
Date Received: 12/10/25 10:40

Lab Sample ID: 410-256929-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<20000	cn	24000	20000	ng/L		12/23/25 14:45	12/30/25 05:49	10
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4800	cn	14000	4800	ng/L		12/23/25 14:45	12/30/25 05:49	10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<4800	cn	14000	4800	ng/L		12/23/25 14:45	12/30/25 05:49	10
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2400	cn	14000	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<4800	cn	24000	4800	ng/L		12/23/25 14:45	12/30/25 05:49	10
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<4800	cn	14000	4800	ng/L		12/23/25 14:45	12/30/25 05:49	10
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2900	cn	9500	2900	ng/L		12/23/25 14:45	12/30/25 05:49	10
N-methylperfluorooctane sulfonamide (NMeFOSA)	<4800	cn	14000	4800	ng/L		12/23/25 14:45	12/30/25 05:49	10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<4800	cn	14000	4800	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorobutanesulfonic acid (PFBS)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorobutanoic acid (PFBA)	<9500	cn	24000	9500	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorodecanesulfonic acid (PFDS)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorodecanoic acid (PFDA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorododecanesulfonic acid (PFDoS)	<2400	cn	14000	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorododecanoic acid (PFDoA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluoroheptanesulfonic acid (PFHpS)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluoroheptanoic acid (PFHpA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorohexanesulfonic acid (PFHxS)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorohexanoic acid (PFHxA)	<4300	cn	9500	4300	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorononanesulfonic acid (PFNS)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorononanoic acid (PFNA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorooctanesulfonamide (PFOSA)	<3300	cn	9500	3300	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorooctanesulfonic acid (PFOS)	<4800	cn	9500	4800	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorooctanoic acid (PFOA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluoropentanesulfonic acid (PFPeS)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluoropentanoic acid (PFPeA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorotetradecanoic acid (PFTeDA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluorotridecanoic acid (PFTrDA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluoroundecanoic acid (PFUnA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10

Client Sample ID: DC-SPOT-3
Date Collected: 12/09/25 14:30
Date Received: 12/10/25 10:40

Lab Sample ID: 410-256929-1
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2400	cn	9500	2400	ng/L		12/23/25 14:45	12/30/25 05:49	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*140*	*cn*	*10 - 188*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C2-6:2 FTS	*271*	**5+ cn*	*10 - 196*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C2-8:2 FTS	*148*	*cn*	*10 - 200*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C2-PFTeDA	*32*	*cn*	*10 - 155*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C3-HFPO-DA	*59*	*cn*	*10 - 141*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C3-PFBS	*84*	*cn*	*14 - 157*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C4-PFBA	*87*	*cn*	*26 - 137*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C4-PFHpA	*81*	*cn*	*14 - 157*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C5-PFPeA	*84*	*cn*	*10 - 161*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C8-PFOA	*84*	*cn*	*21 - 133*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C8-PFOS	*88*	*cn*	*14 - 157*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
d3-NMeFOSAA	*15*	*cn*	*10 - 192*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
d5-NEtFOSAA	*10*	*cn*	*10 - 189*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
d7-N-MeFOSE-M	*7*	**5- cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
d9-N-EtFOSE-M	*3*	**5- cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C3-PFHxS	*82*	*cn*	*14 - 158*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C5-PFHxA	*78*	*cn*	*14 - 148*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C6-PFDA	*89*	*cn*	*19 - 144*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C7-PFUnA	*20*	*cn*	*11 - 153*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
d3-NMePFOSA	*7*	**5- cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
d5-NEtPFOSA	*5*	**5- cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C8-PFOSA	*29*	*cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C2-PFDoA	*8*	**5- cn*	*10 - 153*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C9-PFNA	*96*	*cn*	*13 - 161*	*12/23/25 14:45*	*12/30/25 05:49*	*10*
13C-6:2 FTCA	*122*	*cn*	*11 - 147*	*12/23/25 14:45*	*12/30/25 05:49*	*10*

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<5000		10000	5000	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluoropentanoic acid (PFPeA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorohexanoic acid (PFHxA)	<5000		10000	5000	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluoroheptanoic acid (PFHpA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorooctanoic acid (PFOA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorononanoic acid (PFNA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorodecanoic acid (PFDA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluoroundecanoic acid (PFUnA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorododecanoic acid (PFDoA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorotridecanoic acid (PFTrDA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorotetradecanoic acid (PFTeDA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorobutanesulfonic acid (PFBS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10

Client Sample ID: DC-SPOT-3
Date Collected: 12/09/25 14:30
Date Received: 12/10/25 10:40

Lab Sample ID: 410-256929-1
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorohexanesulfonic acid (PFHxS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluoroheptanesulfonic acid (PFHpS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorooctanesulfonic acid (PFOS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorononanesulfonic acid (PFNS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorodecanesulfonic acid (PFDS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorododecanesulfonic acid (PFDoS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<5500		10000	5500	ng/L		12/16/25 09:36	01/15/26 20:58	10
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3000		10000	3000	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluorooctanesulfonamide (PFOSA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
N-methylperfluorooctane sulfonamide (NMeFOSA)	<3500		10000	3500	ng/L		12/16/25 09:36	01/15/26 20:58	10
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<8000		10000	8000	ng/L		12/16/25 09:36	01/15/26 20:58	10
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 20:58	10
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<5500		10000	5500	ng/L		12/16/25 09:36	01/15/26 20:58	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*8*	**5- cn*	*17 - 153*	*12/16/25 09:36*	*01/15/26 20:58*	*10*
13C5 PFPeA	*20*		*19 - 178*	*12/16/25 09:36*	*01/15/26 20:58*	*10*
13C5 PFHxA	*41*		*26 - 156*	*12/16/25 09:36*	*01/15/26 20:58*	*10*

Client Sample ID: DC-SPOT-3

Lab Sample ID: 410-256929-1

Date Collected: 12/09/25 14:30

Matrix: Water

Date Received: 12/10/25 10:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	45		33 - 158	12/16/25 09:36	01/15/26 20:58	10
13C8 PFOA	99		35 - 146	12/16/25 09:36	01/15/26 20:58	10
13C9 PFNA	67		37 - 157	12/16/25 09:36	01/15/26 20:58	10
13C6 PFDA	78	cn	36 - 152	12/16/25 09:36	01/15/26 20:58	10
13C7 PFUnA	26	*5- cn	32 - 155	12/16/25 09:36	01/15/26 20:58	10
13C2-PFDoDA	15	*5-	23 - 149	12/16/25 09:36	01/15/26 20:58	10
13C2 PFTeDA	25		17 - 149	12/16/25 09:36	01/15/26 20:58	10
13C3 PFBS	50		20 - 198	12/16/25 09:36	01/15/26 20:58	10
13C3 PFHxS	54		35 - 165	12/16/25 09:36	01/15/26 20:58	10
13C8 PFOS	74		41 - 155	12/16/25 09:36	01/15/26 20:58	10
13C8 FOSA	45		20 - 142	12/16/25 09:36	01/15/26 20:58	10
d5-NEtFOSAA	12	*5- cn	28 - 188	12/16/25 09:36	01/15/26 20:58	10
M2-6:2 FTS	143		25 - 189	12/16/25 09:36	01/15/26 20:58	10
M2-8:2 FTS	109		28 - 192	12/16/25 09:36	01/15/26 20:58	10
13C3 HFPO-DA	35		26 - 161	12/16/25 09:36	01/15/26 20:58	10
d7-N-MeFOSE-M	4	*5- cn	10 - 155	12/16/25 09:36	01/15/26 20:58	10
d9-N-EtFOSE-M	4	*5- cn	10 - 147	12/16/25 09:36	01/15/26 20:58	10
d5-NEtPFOSA	5	*5- cn	10 - 130	12/16/25 09:36	01/15/26 20:58	10
d3-NMePFOSA	7	*5- cn	10 - 130	12/16/25 09:36	01/15/26 20:58	10
13C-6:2 FTCA	24		18 - 186	12/16/25 09:36	01/15/26 20:58	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	39		38 - 139	12/16/25 09:36	01/15/26 20:58	10
13C2 PFUnA	18	S1- cn	29 - 153	12/16/25 09:36	01/15/26 20:58	10
13C4 PFOA	48		23 - 190	12/16/25 09:36	01/15/26 20:58	10

Client Sample ID: DC-SPOT-4

Lab Sample ID: 410-256929-2

Date Collected: 12/09/25 14:40

Matrix: Water

Date Received: 12/10/25 10:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<20000		24000	20000	ng/L		12/23/25 14:45	12/30/25 06:02	10
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4800		14000	4800	ng/L		12/23/25 14:45	12/30/25 06:02	10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<4800		14000	4800	ng/L		12/23/25 14:45	12/30/25 06:02	10
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2400		14000	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<4800		24000	4800	ng/L		12/23/25 14:45	12/30/25 06:02	10
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<4800		14000	4800	ng/L		12/23/25 14:45	12/30/25 06:02	10

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Client Sample ID: DC-SPOT-4
Date Collected: 12/09/25 14:40
Date Received: 12/10/25 10:40

Lab Sample ID: 410-256929-2
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2900		9600	2900	ng/L		12/23/25 14:45	12/30/25 06:02	10
N-methylperfluorooctane sulfonamide (NMeFOSA)	<4800		14000	4800	ng/L		12/23/25 14:45	12/30/25 06:02	10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<4800		14000	4800	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorobutanesulfonic acid (PFBS)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorobutanoic acid (PFBA)	<9600		24000	9600	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorodecanesulfonic acid (PFDS)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorodecanoic acid (PFDA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorododecanesulfonic acid (PFDoS)	<2400		14000	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorododecanoic acid (PFDoA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluoroheptanesulfonic acid (PFHpS)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluoroheptanoic acid (PFHpA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorohexanesulfonic acid (PFHxS)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorohexanoic acid (PFHxA)	<4300		9600	4300	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorononanesulfonic acid (PFNS)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorononanoic acid (PFNA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorooctanesulfonamide (PFOSA)	<3400		9600	3400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorooctanesulfonic acid (PFOS)	<4800		9600	4800	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorooctanoic acid (PFOA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluoropentanesulfonic acid (PFPeS)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluoropentanoic acid (PFPeA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorotetradecanoic acid (PFTeDA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluorotridecanoic acid (PFTrDA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluoroundecanoic acid (PFUnA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2400		9600	2400	ng/L		12/23/25 14:45	12/30/25 06:02	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*149*		*10 - 188*	*12/23/25 14:45*	*12/30/25 06:02*	*10*
13C2-6:2 FTS	*155*		*10 - 196*	*12/23/25 14:45*	*12/30/25 06:02*	*10*
13C2-8:2 FTS	*190*		*10 - 200*	*12/23/25 14:45*	*12/30/25 06:02*	*10*
13C2-PFTeDA	*41*		*10 - 155*	*12/23/25 14:45*	*12/30/25 06:02*	*10*
13C3-HFPO-DA	*87*		*10 - 141*	*12/23/25 14:45*	*12/30/25 06:02*	*10*
13C3-PFBS	*79*		*14 - 157*	*12/23/25 14:45*	*12/30/25 06:02*	*10*
13C4-PFBA	*108*		*26 - 137*	*12/23/25 14:45*	*12/30/25 06:02*	*10*
13C4-PFHpA	*106*		*14 - 157*	*12/23/25 14:45*	*12/30/25 06:02*	*10*

Client Sample ID: DC-SPOT-4
Date Collected: 12/09/25 14:40
Date Received: 12/10/25 10:40

Lab Sample ID: 410-256929-2
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5-PFPeA	92		10 - 161	12/23/25 14:45	12/30/25 06:02	10
13C8-PFOA	102		21 - 133	12/23/25 14:45	12/30/25 06:02	10
13C8-PFOS	111		14 - 157	12/23/25 14:45	12/30/25 06:02	10
d3-NMeFOSAA	157		10 - 192	12/23/25 14:45	12/30/25 06:02	10
d5-NEtFOSAA	175		10 - 189	12/23/25 14:45	12/30/25 06:02	10
d7-N-MeFOSE-M	0	*5- cn	10 - 130	12/23/25 14:45	12/30/25 06:02	10
d9-N-EtFOSE-M	15		10 - 130	12/23/25 14:45	12/30/25 06:02	10
13C3-PFHxS	99		14 - 158	12/23/25 14:45	12/30/25 06:02	10
13C5-PFHxA	98		14 - 148	12/23/25 14:45	12/30/25 06:02	10
13C6-PFDA	113		19 - 144	12/23/25 14:45	12/30/25 06:02	10
13C7-PFUnA	117		11 - 153	12/23/25 14:45	12/30/25 06:02	10
d3-NMePFOSA	0	*5- cn	10 - 130	12/23/25 14:45	12/30/25 06:02	10
d5-NEtPFOSA	21		10 - 130	12/23/25 14:45	12/30/25 06:02	10
13C8-PFOSA	95		10 - 130	12/23/25 14:45	12/30/25 06:02	10
13C2-PFDoA	3	*5- cn	10 - 153	12/23/25 14:45	12/30/25 06:02	10
13C9-PFNA	120		13 - 161	12/23/25 14:45	12/30/25 06:02	10
13C-6:2 FTCA	168	*5+ cn	11 - 147	12/23/25 14:45	12/30/25 06:02	10

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<5000		10000	5000	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluoropentanoic acid (PFPeA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorohexanoic acid (PFHxA)	<5000		10000	5000	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluoroheptanoic acid (PFHpA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorooctanoic acid (PFOA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorononanoic acid (PFNA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorodecanoic acid (PFDA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluoroundecanoic acid (PFUnA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorododecanoic acid (PFDoA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorotridecanoic acid (PFTrDA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorotetradecanoic acid (PFTeDA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorobutanesulfonic acid (PFBS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluoropentanesulfonic acid (PFPeS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorohexanesulfonic acid (PFHxS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluoroheptanesulfonic acid (PFHpS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorooctanesulfonic acid (PFOS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorononanesulfonic acid (PFNS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorodecanesulfonic acid (PFDS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorododecanesulfonic acid (PFDoS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<5500		10000	5500	ng/L		12/16/25 09:36	01/15/26 21:12	10
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3000		10000	3000	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluorooctanesulfonamide (PFOSA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
N-methylperfluorooctane sulfonamide (NMeFOSA)	<3500		10000	3500	ng/L		12/16/25 09:36	01/15/26 21:12	10

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Client Sample ID: DC-SPOT-4
Date Collected: 12/09/25 14:40
Date Received: 12/10/25 10:40

Lab Sample ID: 410-256929-2
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	**7700**	**J**	10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<8000		10000	8000	ng/L		12/16/25 09:36	01/15/26 21:12	10
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:12	10
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<5500		10000	5500	ng/L		12/16/25 09:36	01/15/26 21:12	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*22*		*17 - 153*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C5 PFPeA	*65*		*19 - 178*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C5 PFHxA	*95*		*26 - 156*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C4 PFHpA	*92*		*33 - 158*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C8 PFOA	*174*	**5+ cn*	*35 - 146*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C9 PFNA	*92*		*37 - 157*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C6 PFDA	*108*		*36 - 152*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C7 PFUnA	*95*		*32 - 155*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C2-PFDoDA	*92*		*23 - 149*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C2 PFTeDA	*62*		*17 - 149*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C3 PFBS	*127*		*20 - 198*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C3 PFHxS	*109*		*35 - 165*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C8 PFOS	*107*		*41 - 155*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C8 FOSA	*85*		*20 - 142*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
d5-NEtFOSAA	*121*		*28 - 188*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
M2-6:2 FTS	*384*	**5+ cn*	*25 - 189*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
M2-8:2 FTS	*216*	**5+ cn*	*28 - 192*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
13C3 HFPO-DA	*102*		*26 - 161*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
d7-N-MeFOSE-M	*60*		*10 - 155*	*12/16/25 09:36*	*01/15/26 21:12*	*10*
d9-N-EtFOSE-M	*49*		*10 - 147*	*12/16/25 09:36*	*01/15/26 21:12*	*10*

Client Sample ID: DC-SPOT-4

Lab Sample ID: 410-256929-2

Date Collected: 12/09/25 14:40

Matrix: Water

Date Received: 12/10/25 10:40

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	93		10 - 130	12/16/25 09:36	01/15/26 21:12	10
d3-NMePFOSA	94		10 - 130	12/16/25 09:36	01/15/26 21:12	10
13C-6:2 FTCA	43		18 - 186	12/16/25 09:36	01/15/26 21:12	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	94		38 - 139	12/16/25 09:36	01/15/26 21:12	10
13C2 PFUnA	93		29 - 153	12/16/25 09:36	01/15/26 21:12	10
13C4 PFOA	94		23 - 190	12/16/25 09:36	01/15/26 21:12	10

Client Sample ID: DC-DET-1

Lab Sample ID: 410-256929-3

Date Collected: 12/09/25 14:55

Matrix: Water

Date Received: 12/10/25 10:40

Method: EPA 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<20000	cn	24000	20000	ng/L		12/23/25 14:45	12/30/25 06:16	10
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4900	cn	15000	4900	ng/L		12/23/25 14:45	12/30/25 06:16	10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<4900	cn	15000	4900	ng/L		12/23/25 14:45	12/30/25 06:16	10
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2400	cn	15000	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<4900	cn	24000	4900	ng/L		12/23/25 14:45	12/30/25 06:16	10
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<4900	cn	15000	4900	ng/L		12/23/25 14:45	12/30/25 06:16	10
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2900	cn	9700	2900	ng/L		12/23/25 14:45	12/30/25 06:16	10
N-methylperfluorooctane sulfonamide (NMeFOSA)	<4900	cn	15000	4900	ng/L		12/23/25 14:45	12/30/25 06:16	10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<4900	cn	15000	4900	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorobutanesulfonic acid (PFBS)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorobutanoic acid (PFBA)	<9700	cn	24000	9700	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorodecanesulfonic acid (PFDS)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorodecanoic acid (PFDA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorododecanesulfonic acid (PFDoS)	<2400	cn	15000	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorododecanoic acid (PFDoA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluoroheptanesulfonic acid (PFHpS)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluoroheptanoic acid (PFHpA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorohexanesulfonic acid (PFHxS)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorohexanoic acid (PFHxA)	<4400	cn	9700	4400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorononanesulfonic acid (PFNS)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10

Client Sample ID: DC-DET-1
Date Collected: 12/09/25 14:55
Date Received: 12/10/25 10:40

Lab Sample ID: 410-256929-3
Matrix: Water

Method: EPA 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorooctanesulfonamide (PFOSA)	<3400	cn	9700	3400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorooctanesulfonic acid (PFOS)	<4900	cn	9700	4900	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorooctanoic acid (PFOA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluoropentanesulfonic acid (PFPeS)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluoropentanoic acid (PFPeA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorotetradecanoic acid (PFTeDA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluorotridecanoic acid (PFTrDA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluoroundecanoic acid (PFUnA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2400	cn	9700	2400	ng/L		12/23/25 14:45	12/30/25 06:16	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*133*	*cn*	*10 - 188*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C2-6:2 FTS	*205*	**5+ cn*	*10 - 196*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C2-8:2 FTS	*139*	*cn*	*10 - 200*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C2-PFTeDA	*5*	**5- cn*	*10 - 155*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C3-HFPO-DA	*56*	*cn*	*10 - 141*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C3-PFBS	*68*	*cn*	*14 - 157*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C4-PFBA	*79*	*cn*	*26 - 137*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C4-PFHpA	*56*	*cn*	*14 - 157*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C5-PFPeA	*72*	*cn*	*10 - 161*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C8-PFOA	*49*	*cn*	*21 - 133*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C8-PFOS	*92*	*cn*	*14 - 157*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
d3-NMeFOSAA	*12*	*cn*	*10 - 192*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
d5-NEtFOSAA	*5*	**5- cn*	*10 - 189*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
d7-N-MeFOSE-M	*5*	**5- cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
d9-N-EtFOSE-M	*1*	**5- cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C3-PFHxS	*55*	*cn*	*14 - 158*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C5-PFHxA	*61*	*cn*	*14 - 148*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C6-PFDA	*92*	*cn*	*19 - 144*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C7-PFUnA	*12*	*cn*	*11 - 153*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
d3-NMePFOSA	*7*	**5- cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
d5-NEtPFOSA	*3*	**5- cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C8-PFOSA	*23*	*cn*	*10 - 130*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C2-PFDoA	*6*	**5- cn*	*10 - 153*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C9-PFNA	*94*	*cn*	*13 - 161*	*12/23/25 14:45*	*12/30/25 06:16*	*10*
13C-6:2 FTCA	*105*	*cn*	*11 - 147*	*12/23/25 14:45*	*12/30/25 06:16*	*10*

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Client Sample ID: DC-DET-1
Date Collected: 12/09/25 14:55
Date Received: 12/10/25 10:40

Lab Sample ID: 410-256929-3
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<5000		10000	5000	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluoropentanoic acid (PFPeA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorohexanoic acid (PFHxA)	<5000		10000	5000	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluoroheptanoic acid (PFHpA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorooctanoic acid (PFOA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorononanoic acid (PFNA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorodecanoic acid (PFDA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluoroundecanoic acid (PFUnA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorododecanoic acid (PFDoA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorotridecanoic acid (PFTrDA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorotetradecanoic acid (PFTeDA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorobutanesulfonic acid (PFBS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluoropentanesulfonic acid (PFPeS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorohexanesulfonic acid (PFHxS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluoroheptanesulfonic acid (PFHpS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorooctanesulfonic acid (PFOS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorononanesulfonic acid (PFNS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorodecanesulfonic acid (PFDS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorododecanesulfonic acid (PFDoS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<5500		10000	5500	ng/L		12/16/25 09:36	01/15/26 21:25	10
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3000		10000	3000	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluorooctanesulfonamide (PFOSA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
N-methylperfluorooctane sulfonamide (NMeFOSA)	<3500		10000	3500	ng/L		12/16/25 09:36	01/15/26 21:25	10
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	**4300**	**J**	10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<8000		10000	8000	ng/L		12/16/25 09:36	01/15/26 21:25	10
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10

Client Sample ID: DC-DET-1
Date Collected: 12/09/25 14:55
Date Received: 12/10/25 10:40

Lab Sample ID: 410-256929-3
Matrix: Water

Method: EPA 537 TOP - Fluorinated Alkyl Substances - Post-Treatment (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<2500		10000	2500	ng/L		12/16/25 09:36	01/15/26 21:25	10
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<5500		10000	5500	ng/L		12/16/25 09:36	01/15/26 21:25	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*71*		*17 - 153*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C5 PFPeA	*102*		*19 - 178*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C5 PFHxA	*80*		*26 - 156*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C4 PFHpA	*75*		*33 - 158*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C8 PFOA	*155*	**5+ cn*	*35 - 146*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C9 PFNA	*72*		*37 - 157*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C6 PFDA	*53*		*36 - 152*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C7 PFUnA	*11*	**5- cn*	*32 - 155*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C2-PFDoDA	*4*	**5- cn*	*23 - 149*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C2 PFTeDA	*7*	**5- cn*	*17 - 149*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C3 PFBS	*109*		*20 - 198*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C3 PFHxS	*77*		*35 - 165*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C8 PFOS	*48*		*41 - 155*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C8 FOSA	*20*		*20 - 142*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
d5-NEtFOSAA	*7*	**5- cn*	*28 - 188*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
M2-6:2 FTS	*245*	**5+ cn*	*25 - 189*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
M2-8:2 FTS	*97*		*28 - 192*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C3 HFPO-DA	*77*		*26 - 161*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
d7-N-MeFOSE-M	*2*	**5- cn*	*10 - 155*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
d9-N-EtFOSE-M	*3*	**5- cn*	*10 - 147*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
d5-NEtPFOSA	*1*	**5- cn*	*10 - 130*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
d3-NMePFOSA	*1*	**5- cn*	*10 - 130*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C-6:2 FTCA	*45*		*18 - 186*	*12/16/25 09:36*	*01/15/26 21:25*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*75*		*38 - 139*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C2 PFUnA	*6*	*S1- cn*	*29 - 153*	*12/16/25 09:36*	*01/15/26 21:25*	*10*
13C4 PFOA	*87*		*23 - 190*	*12/16/25 09:36*	*01/15/26 21:25*	*10*

Surrogate Summary

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Post-Treatment

		Percent Surrogate Recovery (Acceptance Limits)								
		PFHxA	PFUnA	PFOA						
Lab Sample ID	Client Sample ID	(38-139)	(29-153)	(23-190)						
410-256929-1	DC-SPOT-3	39	18 S1- cn	48						
410-256929-2	DC-SPOT-4	94	93	94						
410-256929-3	DC-DET-1	75	6 S1- cn	87						

Surrogate Legend

PFHxA = 13C2 PFHxA
PFUnA = 13C2 PFUnA
PFOA = 13C4 PFOA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFTDA	HFPODA	C3PFBS	PFBA	C4PFHA
Lab Sample ID	Client Sample ID	(10-188)	(10-196)	(10-200)	(10-155)	(10-141)	(14-157)	(26-137)	(14-157)
410-256929-1	DC-SPOT-3	140 cn	271 *5+ cn	148 cn	32 cn	59 cn	84 cn	87 cn	81 cn
410-256929-2	DC-SPOT-4	149	155	190	41	87	79	108	106
410-256929-3	DC-DET-1	133 cn	205 *5+ cn	139 cn	5 *5- cn	56 cn	68 cn	79 cn	56 cn
LCS 410-748600/2-B	Lab Control Sample	105	151	111	81	78	87	89	89
LCSD 410-748600/3-B	Lab Control Sample Dup	106	148	107	93	80	87	88	88
MB 410-748600/1-B	Method Blank	116	170	119	92	79	94	95	94

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFPeA	C8PFOA	C8PFOS	d3NMFOS	d5NEFOS	NMFM	NEFM	C3PFHS
Lab Sample ID	Client Sample ID	(10-161)	(21-133)	(14-157)	(10-192)	(10-189)	(10-130)	(10-130)	(14-158)
410-256929-1	DC-SPOT-3	84 cn	84 cn	88 cn	15 cn	10 cn	7 *5- cn	3 *5- cn	82 cn
410-256929-2	DC-SPOT-4	92	102	111	157	175	0 *5- cn	15	99
410-256929-3	DC-DET-1	72 cn	49 cn	92 cn	12 cn	5 *5- cn	5 *5- cn	1 *5- cn	55 cn
LCS 410-748600/2-B	Lab Control Sample	89	89	90	81	94	47	42	87
LCSD 410-748600/3-B	Lab Control Sample Dup	89	89	93	89	95	58	51	85
MB 410-748600/1-B	Method Blank	94	94	98	90	104	56	50	91

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C5PHA	C6PFDA	13C7PUA	d3NMFSA	d5NPFSA	PFOSA	PFDoDA	C9PFNA
Lab Sample ID	Client Sample ID	(14-148)	(19-144)	(11-153)	(10-130)	(10-130)	(10-130)	(10-153)	(13-161)
410-256929-1	DC-SPOT-3	78 cn	89 cn	20 cn	7 *5- cn	5 *5- cn	29 cn	8 *5- cn	96 cn
410-256929-2	DC-SPOT-4	98	113	117	0 *5- cn	21	95	3 *5- cn	120
410-256929-3	DC-DET-1	61 cn	92 cn	12 cn	7 *5- cn	3 *5- cn	23 cn	6 *5- cn	94 cn
LCS 410-748600/2-B	Lab Control Sample	83	87	87	21	20	55	78	93
LCSD 410-748600/3-B	Lab Control Sample Dup	82	91	89	27	24	64	81	92
MB 410-748600/1-B	Method Blank	87	94	94	24	22	61	86	98

		Percent Isotope Dilution Recovery (Acceptance Limits)
		MFHEA
Lab Sample ID	Client Sample ID	(11-147)
410-256929-1	DC-SPOT-3	122 cn
410-256929-2	DC-SPOT-4	168 *5+ cn
410-256929-3	DC-DET-1	105 cn
LCS 410-748600/2-B	Lab Control Sample	88
LCSD 410-748600/3-B	Lab Control Sample Dup	96
MB 410-748600/1-B	Method Blank	94

Surrogate Legend

M242FTS = 13C2-4:2 FTS
M262FTS = 13C2-6:2 FTS
M282FTS = 13C2-8:2 FTS
PFTDA = 13C2-PFTeDA
HFPODA = 13C3-HFPO-DA
C3PFBS = 13C3-PFBS
PFBA = 13C4-PFBA
C4PFHA = 13C4-PFHpA
PFPeA = 13C5-PFPeA
C8PFOA = 13C8-PFOA
C8PFOS = 13C8-PFOS
d3NMFOS = d3-NMeFOSAA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
C3PFHS = 13C3-PFHxS
13C5PHA = 13C5-PFHxA
C6PFDA = 13C6-PFDA
13C7PUA = 13C7-PFUnA
d3NMFSA = d3-NMePFOSA
d5NPFSA = d5-NEtPFOSA
PFOSA = 13C8-PFOSA
PFDoDA = 13C2-PFDoA
C9PFNA = 13C9-PFNA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(17-153)	(19-178)	(26-156)	(33-158)	(35-146)	(37-157)	(36-152)	(32-155)
LCS 410-744798/3-B	Lab Control Sample	82	82	74	79	130	81	93	96
LCSD 410-744798/4-B	Lab Control Sample Dup	79	81	75	78	132	79	89	89
MB 410-744798/2-B	Method Blank	87	89	85	85	138	84	100	95

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(23-149)	(17-149)	(20-198)	(35-165)	(41-155)	(20-142)	(28-188)	(25-189)
LCS 410-744798/3-B	Lab Control Sample	87	87	83	80	86	82	112	88
LCSD 410-744798/4-B	Lab Control Sample Dup	80	81	82	83	83	79	99	83
MB 410-744798/2-B	Method Blank	80	82	88	88	89	81	113	90

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA	
Lab Sample ID	Client Sample ID	(28-192)	(26-161)	(10-155)	(10-147)	(10-130)	(10-130)	(18-186)	
LCS 410-744798/3-B	Lab Control Sample	118	75	84	84	81	88	117	
LCSD 410-744798/4-B	Lab Control Sample Dup	108	75	73	76	74	73	118	
MB 410-744798/2-B	Method Blank	133	79	77	85	81	80	124	

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M

Isotope Dilution Summary

Client: Hart & Hickman, PC
Job ID: 410-256929-1
Project/Site: DS0.PFAS

NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)									
		d3NMFOS	M242FTS								
Lab Sample ID	Client Sample ID	(0-10)	(0-10)								
MB 410-744798/1-B	Method Blank	1	0								

Surrogate Legend

d3NMFOS = d3-NMeFOSAA
M242FTS = M2-4:2 FTS

Method: 537 TOP - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Post-Treatment**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(17-153)	(19-178)	(26-156)	(33-158)	(35-146)	(37-157)	(36-152)	(32-155)
410-256929-1	DC-SPOT-3	8 *5- cn	20	41	45	99	67	78 cn	26 *5- cn
410-256929-2	DC-SPOT-4	22	65	95	92	174 *5+ cn	92	108	95
410-256929-3	DC-DET-1	71	102	80	75	155 *5+ cn	72	53	11 *5- cn

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(23-149)	(17-149)	(20-198)	(35-165)	(41-155)	(20-142)	(28-188)	(25-189)
410-256929-1	DC-SPOT-3	15 *5-	25	50	54	74	45	12 *5- cn	143
410-256929-2	DC-SPOT-4	92	62	127	109	107	85	121	384 *5+ cn
410-256929-3	DC-DET-1	4 *5- cn	7 *5- cn	109	77	48	20	7 *5- cn	245 *5+ cn

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	MFHEA
Lab Sample ID	Client Sample ID	(28-192)	(26-161)	(10-155)	(10-147)	(10-130)	(10-130)	(18-186)
410-256929-1	DC-SPOT-3	109	35	4 *5- cn	4 *5- cn	5 *5- cn	7 *5- cn	24
410-256929-2	DC-SPOT-4	216 *5+ cn	102	60	49	93	94	43
410-256929-3	DC-DET-1	97	77	2 *5- cn	3 *5- cn	1 *5- cn	1 *5- cn	45

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA

Isotope Dilution Summary

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
MFHEA = 13C-6:2 FTCA

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-748600/1-B
Matrix: Water
Analysis Batch: 749953

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 748600

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2100		2500	2100	ng/L		12/23/25 14:45	12/29/25 18:57	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<500		1500	500	ng/L		12/23/25 14:45	12/29/25 18:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<500		1500	500	ng/L		12/23/25 14:45	12/29/25 18:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<250		1500	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<500		2500	500	ng/L		12/23/25 14:45	12/29/25 18:57	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<500		1500	500	ng/L		12/23/25 14:45	12/29/25 18:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<300		1000	300	ng/L		12/23/25 14:45	12/29/25 18:57	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<500		1500	500	ng/L		12/23/25 14:45	12/29/25 18:57	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<500		1500	500	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorobutanesulfonic acid (PFBS)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorobutanoic acid (PFBA)	<1000		2500	1000	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorodecanesulfonic acid (PFDS)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorodecanoic acid (PFDA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorododecanesulfonic acid (PFDoS)	<250		1500	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorododecanoic acid (PFDoA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluoroheptanesulfonic acid (PFHpS)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluoroheptanoic acid (PFHpA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorohexanesulfonic acid (PFHxS)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorohexanoic acid (PFHxA)	<450		1000	450	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorononanesulfonic acid (PFNS)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorononanoic acid (PFNA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorooctanesulfonamide (PFOSA)	<350		1000	350	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorooctanesulfonic acid (PFOS)	<500		1000	500	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorooctanoic acid (PFOA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluoropentanesulfonic acid (PFPeS)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluoropentanoic acid (PFPeA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorotetradecanoic acid (PFTeDA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluorotridecanoic acid (PFTrDA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluoroundecanoic acid (PFUnA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-748600/1-B
Matrix: Water
Analysis Batch: 749953

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 748600

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<250		1000	250	ng/L		12/23/25 14:45	12/29/25 18:57	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-4:2 FTS	*116*		*10 - 188*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C2-6:2 FTS	*170*		*10 - 196*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C2-8:2 FTS	*119*		*10 - 200*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C2-PFTeDA	*92*		*10 - 155*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C3-HFPO-DA	*79*		*10 - 141*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C3-PFBS	*94*		*14 - 157*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C4-PFBA	*95*		*26 - 137*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C4-PFHpA	*94*		*14 - 157*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C5-PFPeA	*94*		*10 - 161*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C8-PFOA	*94*		*21 - 133*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C8-PFOS	*98*		*14 - 157*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
d3-NMeFOSAA	*90*		*10 - 192*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
d5-NEtFOSAA	*104*		*10 - 189*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
d7-N-MeFOSE-M	*56*		*10 - 130*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
d9-N-EtFOSE-M	*50*		*10 - 130*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C3-PFHxS	*91*		*14 - 158*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C5-PFHxA	*87*		*14 - 148*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C6-PFDA	*94*		*19 - 144*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C7-PFUnA	*94*		*11 - 153*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
d3-NMePFOSA	*24*		*10 - 130*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
d5-NEtPFOSA	*22*		*10 - 130*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C8-PFOSA	*61*		*10 - 130*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C2-PFDoA	*86*		*10 - 153*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C9-PFNA	*98*		*13 - 161*	*12/23/25 14:45*	*12/29/25 18:57*	*1*
13C-6:2 FTCA	*94*		*11 - 147*	*12/23/25 14:45*	*12/29/25 18:57*	*1*

Lab Sample ID: LCS 410-748600/2-B
Matrix: Water
Analysis Batch: 749953

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 748600

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	6040	6250		ng/L		103	61 - 131
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5610		ng/L		93	57 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	5790		ng/L		95	58 - 136

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-748600/2-B
Matrix: Water
Analysis Batch: 749953

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 748600

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	6870		ng/L		112	57 - 134
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	6220		ng/L		104	59 - 130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	6380		ng/L		105	55 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	6500		ng/L		102	50 - 137
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	6740		ng/L		105	53 - 130
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	6720		ng/L		105	59 - 137
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	7050		ng/L		110	59 - 135
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	6230		ng/L		97	54 - 131
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	6780		ng/L		106	61 - 134
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	5920		ng/L		93	58 - 130
Perfluorobutanesulfonic acid (PFBS)	5680	6460		ng/L		114	56 - 130
Perfluorobutanoic acid (PFBA)	6400	7090		ng/L		111	54 - 144
Perfluorodecanesulfonic acid (PFDS)	6170	5390		ng/L		87	63 - 130
Perfluorodecanoic acid (PFDA)	6400	6930		ng/L		108	61 - 135
Perfluorododecanesulfonic acid (PFDoS)	6210	6600		ng/L		106	59 - 130
Perfluorododecanoic acid (PFDoA)	6400	7340		ng/L		115	60 - 133
Perfluoroheptanesulfonic acid (PFHpS)	6110	6820		ng/L		112	51 - 132
Perfluoroheptanoic acid (PFHpA)	6400	6750		ng/L		105	54 - 133
Perfluorohexanesulfonic acid (PFHxS)	5840	6050		ng/L		104	56 - 130
Perfluorohexanoic acid (PFHxA)	6400	6410		ng/L		100	55 - 132
Perfluorononanesulfonic acid (PFNS)	6160	6480		ng/L		105	65 - 136
Perfluorononanoic acid (PFNA)	6400	6750		ng/L		105	50 - 140
Perfluorooctanesulfonamide (PFOSA)	6400	7550		ng/L		118	62 - 136
Perfluorooctanesulfonic acid (PFOS)	5950	6050		ng/L		102	37 - 149
Perfluorooctanoic acid (PFOA)	6400	6720		ng/L		105	60 - 130
Perfluoropentanesulfonic acid (PFPeS)	6020	6860		ng/L		114	59 - 130
Perfluoropentanoic acid (PFPeA)	6400	7490		ng/L		117	59 - 133
Perfluorotetradecanoic acid (PFTeDA)	6400	6410		ng/L		100	62 - 130
Perfluorotridecanoic acid (PFTrDA)	6400	7130		ng/L		111	53 - 133
Perfluoroundecanoic acid (PFUnA)	6400	6720		ng/L		105	58 - 133

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-748600/2-B
Matrix: Water
Analysis Batch: 749953

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 748600

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	6270		ng/L		110	34 - 134		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	4490		ng/L		70	10 - 155		
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	7040		ng/L		110	53 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	2540		ng/L		40	10 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	7050		ng/L		110	46 - 133		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	3980		ng/L		62	14 - 142		
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	7390		ng/L		115	52 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2-4:2 FTS	*105*		*10 - 188*
13C2-6:2 FTS	*151*		*10 - 196*
13C2-8:2 FTS	*111*		*10 - 200*
13C2-PFTeDA	*81*		*10 - 155*
13C3-HFPO-DA	*78*		*10 - 141*
13C3-PFBS	*87*		*14 - 157*
13C4-PFBA	*89*		*26 - 137*
13C4-PFHpA	*89*		*14 - 157*
13C5-PFPeA	*89*		*10 - 161*
13C8-PFOA	*89*		*21 - 133*
13C8-PFOS	*90*		*14 - 157*
d3-NMeFOSAA	*81*		*10 - 192*
d5-NEtFOSAA	*94*		*10 - 189*
d7-N-MeFOSE-M	*47*		*10 - 130*
d9-N-EtFOSE-M	*42*		*10 - 130*
13C3-PFHxS	*87*		*14 - 158*
13C5-PFHxA	*83*		*14 - 148*
13C6-PFDA	*87*		*19 - 144*
13C7-PFUnA	*87*		*11 - 153*
d3-NMePFOSA	*21*		*10 - 130*
d5-NEtPFOSA	*20*		*10 - 130*
13C8-PFOSA	*55*		*10 - 130*
13C2-PFDoA	*78*		*10 - 153*
13C9-PFNA	*93*		*13 - 161*
13C-6:2 FTCA	*88*		*11 - 147*

Lab Sample ID: LCSD 410-748600/3-B
Matrix: Water
Analysis Batch: 749953

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 748600

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			6040	6500		ng/L		108	61 - 131	4	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-748600/3-B
Matrix: Water
Analysis Batch: 749953

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 748600

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6000	5630		ng/L		94	57 - 130	0	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6090	6320		ng/L		104	58 - 136	9	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6140	7310		ng/L		119	57 - 134	6	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	5980	6390		ng/L		107	59 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6050	6560		ng/L		108	55 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6400	6790		ng/L		106	50 - 137	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6400	7250		ng/L		113	53 - 130	7	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	6400	7160		ng/L		112	59 - 137	6	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	6400	7080		ng/L		111	59 - 135	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6400	6530		ng/L		102	54 - 131	5	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	6400	7350		ng/L		115	61 - 134	8	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	6400	6600		ng/L		103	58 - 130	11	30
Perfluorobutanesulfonic acid (PFBS)	5680	7000		ng/L		123	56 - 130	8	30
Perfluorobutanoic acid (PFBA)	6400	7520		ng/L		117	54 - 144	6	30
Perfluorodecanesulfonic acid (PFDS)	6170	5440		ng/L		88	63 - 130	1	30
Perfluorodecanoic acid (PFDA)	6400	7010		ng/L		110	61 - 135	1	30
Perfluorododecanesulfonic acid (PFDoS)	6210	6930		ng/L		112	59 - 130	5	30
Perfluorododecanoic acid (PFDoA)	6400	7870		ng/L		123	60 - 133	7	30
Perfluoroheptanesulfonic acid (PFHpS)	6110	7110		ng/L		116	51 - 132	4	30
Perfluoroheptanoic acid (PFHpA)	6400	7000		ng/L		109	54 - 133	4	30
Perfluorohexanesulfonic acid (PFHxS)	5840	6430		ng/L		110	56 - 130	6	30
Perfluorohexanoic acid (PFHxA)	6400	6640		ng/L		104	55 - 132	4	30
Perfluorononanesulfonic acid (PFNS)	6160	6530		ng/L		106	65 - 136	1	30
Perfluorononanoic acid (PFNA)	6400	6980		ng/L		109	50 - 140	3	30
Perfluorooctanesulfonamide (PFOSA)	6400	7760		ng/L		121	62 - 136	3	30
Perfluorooctanesulfonic acid (PFOS)	5950	6320		ng/L		106	37 - 149	4	30
Perfluorooctanoic acid (PFOA)	6400	6860		ng/L		107	60 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	6020	6790		ng/L		113	59 - 130	1	30
Perfluoropentanoic acid (PFPeA)	6400	7810		ng/L		122	59 - 133	4	30
Perfluorotetradecanoic acid (PFTeDA)	6400	6850		ng/L		107	62 - 130	7	30

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-748600/3-B
Matrix: Water
Analysis Batch: 749953

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 748600

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorotridecanoic acid (PFTrDA)			6400	7440		ng/L		116	53 - 133	4	30
Perfluoroundecanoic acid (PFUnA)			6400	7200		ng/L		113	58 - 133	7	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			5710	6520		ng/L		114	34 - 134	4	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			6400	3490		ng/L		55	10 - 155	25	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			6400	7300		ng/L		114	53 - 135	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			6400	2870		ng/L		45	10 - 150	12	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			6400	7120		ng/L		111	46 - 133	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			6400	3970		ng/L		62	14 - 142	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			6400	7790		ng/L		122	52 - 130	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2-4:2 FTS	*106*		*10 - 188*
13C2-6:2 FTS	*148*		*10 - 196*
13C2-8:2 FTS	*107*		*10 - 200*
13C2-PFTeDA	*93*		*10 - 155*
13C3-HFPO-DA	*80*		*10 - 141*
13C3-PFBS	*87*		*14 - 157*
13C4-PFBA	*88*		*26 - 137*
13C4-PFHpA	*88*		*14 - 157*
13C5-PFPeA	*89*		*10 - 161*
13C8-PFOA	*89*		*21 - 133*
13C8-PFOS	*93*		*14 - 157*
d3-NMeFOSAA	*89*		*10 - 192*
d5-NEtFOSAA	*95*		*10 - 189*
d7-N-MeFOSE-M	*58*		*10 - 130*
d9-N-EtFOSE-M	*51*		*10 - 130*
13C3-PFHxS	*85*		*14 - 158*
13C5-PFHxA	*82*		*14 - 148*
13C6-PFDA	*91*		*19 - 144*
13C7-PFUnA	*89*		*11 - 153*
d3-NMePFOSA	*27*		*10 - 130*
d5-NEtPFOSA	*24*		*10 - 130*
13C8-PFOSA	*64*		*10 - 130*
13C2-PFDoA	*81*		*10 - 153*
13C9-PFNA	*92*		*13 - 161*
13C-6:2 FTCA	*96*		*11 - 147*

Method: 537 TOP - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-744798/2-B
Matrix: Water
Analysis Batch: 747968

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 744798

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<500		1000	500	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluoropentanoic acid (PFPeA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorohexanoic acid (PFHxA)	<500		1000	500	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluoroheptanoic acid (PFHpA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorooctanoic acid (PFOA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorononanoic acid (PFNA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorodecanoic acid (PFDA)	311	J	1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluoroundecanoic acid (PFUnA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorododecanoic acid (PFDoA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorotridecanoic acid (PFTrDA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorotetradecanoic acid (PFTeDA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorobutanesulfonic acid (PFBS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluoropentanesulfonic acid (PFPeS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorohexanesulfonic acid (PFHxS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluoroheptanesulfonic acid (PFHpS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorooctanesulfonic acid (PFOS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorononanesulfonic acid (PFNS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorodecanesulfonic acid (PFDS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorododecanesulfonic acid (PFDoS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<550		1000	550	ng/L		12/16/25 09:36	12/22/25 16:23	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<300		1000	300	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluorooctanesulfonamide (PFOSA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<350		1000	350	ng/L		12/16/25 09:36	12/22/25 16:23	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<800		1000	800	ng/L		12/16/25 09:36	12/22/25 16:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-744798/2-B
Matrix: Water
Analysis Batch: 747968

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 744798

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<250		1000	250	ng/L		12/16/25 09:36	12/22/25 16:23	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<550		1000	550	ng/L		12/16/25 09:36	12/22/25 16:23	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*87*		*17 - 153*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C5 PFPeA	*89*		*19 - 178*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C5 PFHxA	*85*		*26 - 156*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C4 PFHpA	*85*		*33 - 158*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C8 PFOA	*138*		*35 - 146*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C9 PFNA	*84*		*37 - 157*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C6 PFDA	*100*		*36 - 152*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C7 PFUnA	*95*		*32 - 155*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C2-PFDoDA	*80*		*23 - 149*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C2 PFTeDA	*82*		*17 - 149*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C3 PFBS	*88*		*20 - 198*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C3 PFHxS	*88*		*35 - 165*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C8 PFOS	*89*		*41 - 155*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C8 FOSA	*81*		*20 - 142*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
d5-NEtFOSAA	*113*		*28 - 188*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
M2-6:2 FTS	*90*		*25 - 189*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
M2-8:2 FTS	*133*		*28 - 192*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C3 HFPO-DA	*79*		*26 - 161*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
d7-N-MeFOSE-M	*77*		*10 - 155*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
d9-N-EtFOSE-M	*85*		*10 - 147*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
d5-NEtPFOSA	*81*		*10 - 130*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
d3-NMePFOSA	*80*		*10 - 130*	*12/16/25 09:36*	*12/22/25 16:23*	*1*
13C-6:2 FTCA	*124*		*18 - 186*	*12/16/25 09:36*	*12/22/25 16:23*	*1*

Lab Sample ID: LCS 410-744798/3-B
Matrix: Water
Analysis Batch: 747968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 744798

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	12800	14100		ng/L		110	57 - 148
Perfluoropentanoic acid (PFPeA)	12800	14700		ng/L		115	58 - 135
Perfluorohexanoic acid (PFHxA)	12800	13400		ng/L		104	51 - 150
Perfluoroheptanoic acid (PFHpA)	12800	12800		ng/L		100	55 - 145
Perfluorooctanoic acid (PFOA)	12800	8080		ng/L		63	53 - 147
Perfluorononanoic acid (PFNA)	12800	12700		ng/L		99	52 - 143
Perfluorodecanoic acid (PFDA)	12800	13700		ng/L		107	57 - 140
Perfluoroundecanoic acid (PFUnA)	12800	12900		ng/L		100	55 - 142

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-744798/3-B
Matrix: Water
Analysis Batch: 747968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 744798

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanoic acid (PFDoA)	12800	14300		ng/L		111	62 - 146
Perfluorotridecanoic acid (PFTrDA)	12800	13600		ng/L		106	55 - 160
Perfluorotetradecanoic acid (PFTeDA)	12800	14700		ng/L		115	58 - 149
Perfluorobutanesulfonic acid (PFBS)	11400	12300		ng/L		108	54 - 145
Perfluoropentanesulfonic acid (PFPeS)	12000	13900		ng/L		115	54 - 148
Perfluorohexanesulfonic acid (PFHxS)	11700	12700		ng/L		109	52 - 138
Perfluoroheptanesulfonic acid (PFHpS)	12200	14100		ng/L		116	51 - 141
Perfluorooctanesulfonic acid (PFOS)	11900	11300		ng/L		95	52 - 139
Perfluorononanesulfonic acid (PFNS)	12300	11900		ng/L		97	52 - 146
Perfluorodecanesulfonic acid (PFDS)	12300	10600		ng/L		86	52 - 145
Perfluorododecanesulfonic acid (PFDoS)	12400	12800		ng/L		103	51 - 147
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	9810		ng/L		82	55 - 136
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	12100		ng/L		99	53 - 137
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	11300		ng/L		92	54 - 145
Perfluorooctanesulfonamide (PFOSA)	12800	14400		ng/L		113	57 - 143
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	11900		ng/L		93	53 - 149
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	13600		ng/L		106	53 - 146
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	10800		ng/L		85	53 - 132
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	13200		ng/L		103	50 - 135
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	11000		ng/L		86	56 - 132
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	12400		ng/L		97	58 - 133
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	13400		ng/L		105	50 - 132
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	12600		ng/L		104	55 - 144
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	14100		ng/L		110	54 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	13000		ng/L		102	54 - 141
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	12800	12700		ng/L		99	51 - 137
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	12000	11600		ng/L		97	52 - 140

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-744798/3-B
Matrix: Water
Analysis Batch: 747968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 744798

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	11400		ng/L		94	51 - 137		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	12200		ng/L		107	46 - 143		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	12100		ng/L		95	42 - 148		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	12600		ng/L		98	41 - 149		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	7830		ng/L		61	33 - 142		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*82*		*17 - 153*
13C5 PFPeA	*82*		*19 - 178*
13C5 PFHxA	*74*		*26 - 156*
13C4 PFHpA	*79*		*33 - 158*
13C8 PFOA	*130*		*35 - 146*
13C9 PFNA	*81*		*37 - 157*
13C6 PFDA	*93*		*36 - 152*
13C7 PFUnA	*96*		*32 - 155*
13C2-PFDoDA	*87*		*23 - 149*
13C2 PFTeDA	*87*		*17 - 149*
13C3 PFBS	*83*		*20 - 198*
13C3 PFHxS	*80*		*35 - 165*
13C8 PFOS	*86*		*41 - 155*
13C8 FOSA	*82*		*20 - 142*
d5-NEtFOSAA	*112*		*28 - 188*
M2-6:2 FTS	*88*		*25 - 189*
M2-8:2 FTS	*118*		*28 - 192*
13C3 HFPO-DA	*75*		*26 - 161*
d7-N-MeFOSE-M	*84*		*10 - 155*
d9-N-EtFOSE-M	*84*		*10 - 147*
d5-NEtPFOSA	*81*		*10 - 130*
d3-NMePFOSA	*88*		*10 - 130*
13C-6:2 FTCA	*117*		*18 - 186*

Lab Sample ID: LCSD 410-744798/4-B
Matrix: Water
Analysis Batch: 747968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 744798

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			12800	14800		ng/L		115	57 - 148	5	30
Perfluoropentanoic acid (PFPeA)			12800	14700		ng/L		115	58 - 135	0	30
Perfluorohexanoic acid (PFHxA)			12800	13000		ng/L		102	51 - 150	2	30
Perfluoroheptanoic acid (PFHpA)			12800	13100		ng/L		102	55 - 145	2	30
Perfluorooctanoic acid (PFOA)			12800	7810		ng/L		61	53 - 147	3	30
Perfluorononanoic acid (PFNA)			12800	13400		ng/L		105	52 - 143	6	30
Perfluorodecanoic acid (PFDA)			12800	13500		ng/L		105	57 - 140	2	30
Perfluoroundecanoic acid (PFUnA)			12800	13600		ng/L		107	55 - 142	6	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-744798/4-B
Matrix: Water
Analysis Batch: 747968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 744798

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorododecanoic acid (PFDoA)	12800	14000		ng/L		110	62 - 146	2	30
Perfluorotridecanoic acid (PFTrDA)	12800	14300		ng/L		112	55 - 160	5	30
Perfluorotetradecanoic acid (PFTeDA)	12800	14100		ng/L		110	58 - 149	4	30
Perfluorobutanesulfonic acid (PFBS)	11400	13100		ng/L		116	54 - 145	6	30
Perfluoropentanesulfonic acid (PFPeS)	12000	13600		ng/L		113	54 - 148	2	30
Perfluorohexanesulfonic acid (PFHxS)	11700	12700		ng/L		109	52 - 138	0	30
Perfluoroheptanesulfonic acid (PFHpS)	12200	14000		ng/L		114	51 - 141	1	30
Perfluorooctanesulfonic acid (PFOS)	11900	12300		ng/L		103	52 - 139	8	30
Perfluorononanesulfonic acid (PFNS)	12300	13400		ng/L		109	52 - 146	12	30
Perfluorodecanesulfonic acid (PFDS)	12300	11900		ng/L		97	52 - 145	12	30
Perfluorododecanesulfonic acid (PFDoS)	12400	13200		ng/L		107	51 - 147	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	12000	10500		ng/L		88	55 - 136	7	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	12200	12100		ng/L		100	53 - 137	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	12300	11200		ng/L		91	54 - 145	0	30
Perfluorooctanesulfonamide (PFOSA)	12800	14400		ng/L		113	57 - 143	0	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	12800	13300		ng/L		104	53 - 149	11	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	12800	12600		ng/L		99	53 - 146	7	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12800	12000		ng/L		94	53 - 132	11	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12800	13900		ng/L		109	50 - 135	5	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	12800	11500		ng/L		90	56 - 132	5	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	12800	14000		ng/L		109	58 - 133	12	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12800	13700		ng/L		107	50 - 132	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	12100	13400		ng/L		111	55 - 144	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	12800	14400		ng/L		112	54 - 150	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	12800	12500		ng/L		97	54 - 141	4	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	12800	13600		ng/L		106	51 - 137	7	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	12000	12800		ng/L		107	52 - 140	10	30

Method: 537 TOP - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-744798/4-B
Matrix: Water
Analysis Batch: 747968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 744798

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			12100	13000		ng/L		108	51 - 137	13	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			11400	12500		ng/L		109	46 - 143	3	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			12800	12100		ng/L		94	42 - 148	0	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			12800	12900		ng/L		101	41 - 149	3	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			12800	7930		ng/L		62	33 - 142	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*79*		*17 - 153*
13C5 PFPeA	*81*		*19 - 178*
13C5 PFHxA	*75*		*26 - 156*
13C4 PFHpA	*78*		*33 - 158*
13C8 PFOA	*132*		*35 - 146*
13C9 PFNA	*79*		*37 - 157*
13C6 PFDA	*89*		*36 - 152*
13C7 PFUnA	*89*		*32 - 155*
13C2-PFDoDA	*80*		*23 - 149*
13C2 PFTeDA	*81*		*17 - 149*
13C3 PFBS	*82*		*20 - 198*
13C3 PFHxS	*83*		*35 - 165*
13C8 PFOS	*83*		*41 - 155*
13C8 FOSA	*79*		*20 - 142*
d5-NEtFOSAA	*99*		*28 - 188*
M2-6:2 FTS	*83*		*25 - 189*
M2-8:2 FTS	*108*		*28 - 192*
13C3 HFPO-DA	*75*		*26 - 161*
d7-N-MeFOSE-M	*73*		*10 - 155*
d9-N-EtFOSE-M	*76*		*10 - 147*
d5-NEtPFOSA	*74*		*10 - 130*
d3-NMePFOSA	*73*		*10 - 130*
13C-6:2 FTCA	*118*		*18 - 186*

LCMS

Prep Batch: 744798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-256929-1	DC-SPOT-3	Post-Treatment	Water	TOP Post Prep	
410-256929-2	DC-SPOT-4	Post-Treatment	Water	TOP Post Prep	
410-256929-3	DC-DET-1	Post-Treatment	Water	TOP Post Prep	
MB 410-744798/1-B	Method Blank	Total/NA	Water	TOP Post Prep	
MB 410-744798/2-B	Method Blank	Total/NA	Water	TOP Post Prep	
LCS 410-744798/3-B	Lab Control Sample	Total/NA	Water	TOP Post Prep	
LCSD 410-744798/4-B	Lab Control Sample Dup	Total/NA	Water	TOP Post Prep	

Cleanup Batch: 746145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-256929-1	DC-SPOT-3	Post-Treatment	Water	Extract Aliquot	744798
410-256929-2	DC-SPOT-4	Post-Treatment	Water	Extract Aliquot	744798
410-256929-3	DC-DET-1	Post-Treatment	Water	Extract Aliquot	744798
MB 410-744798/1-B	Method Blank	Total/NA	Water	Extract Aliquot	744798
MB 410-744798/2-B	Method Blank	Total/NA	Water	Extract Aliquot	744798
LCS 410-744798/3-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	744798
LCSD 410-744798/4-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	744798

Analysis Batch: 747968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-744798/1-B	Method Blank	Total/NA	Water	537 TOP	746145
MB 410-744798/2-B	Method Blank	Total/NA	Water	537 TOP	746145
LCS 410-744798/3-B	Lab Control Sample	Total/NA	Water	537 TOP	746145
LCSD 410-744798/4-B	Lab Control Sample Dup	Total/NA	Water	537 TOP	746145

Prep Batch: 748600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-256929-1	DC-SPOT-3	Total/NA	Water	EPA 537 (Mod)	
410-256929-2	DC-SPOT-4	Total/NA	Water	EPA 537 (Mod)	
410-256929-3	DC-DET-1	Total/NA	Water	EPA 537 (Mod)	
MB 410-748600/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-748600/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-748600/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 749318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-256929-1	DC-SPOT-3	Total/NA	Water	Extract Aliquot	748600
410-256929-2	DC-SPOT-4	Total/NA	Water	Extract Aliquot	748600
410-256929-3	DC-DET-1	Total/NA	Water	Extract Aliquot	748600
MB 410-748600/1-B	Method Blank	Total/NA	Water	Extract Aliquot	748600
LCS 410-748600/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	748600
LCSD 410-748600/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	748600

Analysis Batch: 749953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-256929-1	DC-SPOT-3	Total/NA	Water	537 IDA	749318
410-256929-2	DC-SPOT-4	Total/NA	Water	537 IDA	749318
410-256929-3	DC-DET-1	Total/NA	Water	537 IDA	749318
MB 410-748600/1-B	Method Blank	Total/NA	Water	537 IDA	749318
LCS 410-748600/2-B	Lab Control Sample	Total/NA	Water	537 IDA	749318
LCSD 410-748600/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	749318

QC Association Summary

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

LCMS

Analysis Batch: 756926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-256929-1	DC-SPOT-3	Post-Treatment	Water	537 TOP	746145
410-256929-2	DC-SPOT-4	Post-Treatment	Water	537 TOP	746145
410-256929-3	DC-DET-1	Post-Treatment	Water	537 TOP	746145

Lab Chronicle

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Client Sample ID: DC-SPOT-3

Lab Sample ID: 410-256929-1

Date Collected: 12/09/25 14:30

Matrix: Water

Date Received: 12/10/25 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			748600	WHU6	ELLE	12/23/25 14:45
Total/NA	Cleanup	Extract Aliquot			749318	WHU6	ELLE	12/26/25 17:51
Total/NA	Analysis	537 IDA		10	749953	DSU6	ELLE	12/30/25 05:49
Post-Treatment	Prep	TOP Post Prep			744798	S7AC	ELLE	12/16/25 09:36
Post-Treatment	Cleanup	Extract Aliquot			746145	S7AC	ELLE	12/18/25 10:44
Post-Treatment	Analysis	537 TOP		10	756926	QD9Y	ELLE	01/15/26 20:58

Client Sample ID: DC-SPOT-4

Lab Sample ID: 410-256929-2

Date Collected: 12/09/25 14:40

Matrix: Water

Date Received: 12/10/25 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			748600	WHU6	ELLE	12/23/25 14:45
Total/NA	Cleanup	Extract Aliquot			749318	WHU6	ELLE	12/26/25 17:51
Total/NA	Analysis	537 IDA		10	749953	DSU6	ELLE	12/30/25 06:02
Post-Treatment	Prep	TOP Post Prep			744798	S7AC	ELLE	12/16/25 09:36
Post-Treatment	Cleanup	Extract Aliquot			746145	S7AC	ELLE	12/18/25 10:44
Post-Treatment	Analysis	537 TOP		10	756926	QD9Y	ELLE	01/15/26 21:12

Client Sample ID: DC-DET-1

Lab Sample ID: 410-256929-3

Date Collected: 12/09/25 14:55

Matrix: Water

Date Received: 12/10/25 10:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	EPA 537 (Mod)			748600	WHU6	ELLE	12/23/25 14:45
Total/NA	Cleanup	Extract Aliquot			749318	WHU6	ELLE	12/26/25 17:51
Total/NA	Analysis	537 IDA		10	749953	DSU6	ELLE	12/30/25 06:16
Post-Treatment	Prep	TOP Post Prep			744798	S7AC	ELLE	12/16/25 09:36
Post-Treatment	Cleanup	Extract Aliquot			746145	S7AC	ELLE	12/18/25 10:44
Post-Treatment	Analysis	537 TOP		10	756926	QD9Y	ELLE	01/15/26 21:25

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	01-01-27

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 IDA	EPA 537 (Mod)	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 IDA	EPA 537 (Mod)	Water	4,8-Dioxa-3H-perfluorononanoic acid (DONA)
537 IDA	EPA 537 (Mod)	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 IDA	EPA 537 (Mod)	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 IDA	EPA 537 (Mod)	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 IDA	EPA 537 (Mod)	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 IDA	EPA 537 (Mod)	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 IDA	EPA 537 (Mod)	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid (PFBS)
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid (PFBA)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid (PFDS)
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid (PFDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid (PFDoA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid (PFHpA)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid (PFHxS)
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid (PFHxA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid (PFNS)
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid (PFNA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide (PFOSA)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid (PFOS)
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid (PFOA)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid (PFPeS)
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid (PFPeA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid (PFTeDA)
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid (PFTrDA)
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid (PFUnA)
537 TOP	TOP Post Prep	Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
537 TOP	TOP Post Prep	Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
537 TOP	TOP Post Prep	Water	3-Perfluoroheptylpropanoic acid (7:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropentylpropanoic acid (5:3 FTCA)
537 TOP	TOP Post Prep	Water	3-Perfluoropropylpropanoic acid (3:3 FTCA)
537 TOP	TOP Post Prep	Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
537 TOP	TOP Post Prep	Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
537 TOP	TOP Post Prep	Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamide (NEtFOSA)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)
537 TOP	TOP Post Prep	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamide (NMeFOSA)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)
537 TOP	TOP Post Prep	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 TOP	TOP Post Prep	Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
537 TOP	TOP Post Prep	Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)
537 TOP	TOP Post Prep	Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
537 TOP	TOP Post Prep	Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
537 TOP	TOP Post Prep	Water	Perfluorobutanesulfonic acid (PFBS)
537 TOP	TOP Post Prep	Water	Perfluorobutanoic acid (PFBA)

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 TOP	TOP Post Prep	Water	Perfluorodecanesulfonic acid (PFDS)
537 TOP	TOP Post Prep	Water	Perfluorodecanoic acid (PFDA)
537 TOP	TOP Post Prep	Water	Perfluorododecanesulfonic acid (PFDoS)
537 TOP	TOP Post Prep	Water	Perfluorododecanoic acid (PFDoA)
537 TOP	TOP Post Prep	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 TOP	TOP Post Prep	Water	Perfluoroheptanoic acid (PFHpA)
537 TOP	TOP Post Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
537 TOP	TOP Post Prep	Water	Perfluorohexanoic acid (PFHxA)
537 TOP	TOP Post Prep	Water	Perfluorononanesulfonic acid (PFNS)
537 TOP	TOP Post Prep	Water	Perfluorononanoic acid (PFNA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonamide (PFOSA)
537 TOP	TOP Post Prep	Water	Perfluorooctanesulfonic acid (PFOS)
537 TOP	TOP Post Prep	Water	Perfluorooctanoic acid (PFOA)
537 TOP	TOP Post Prep	Water	Perfluoropentanesulfonic acid (PFPeS)
537 TOP	TOP Post Prep	Water	Perfluoropentanoic acid (PFPeA)
537 TOP	TOP Post Prep	Water	Perfluorotetradecanoic acid (PFTeDA)
537 TOP	TOP Post Prep	Water	Perfluorotridecanoic acid (PFTrDA)
537 TOP	TOP Post Prep	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 TOP	Fluorinated Alkyl Substances	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
TOP Post Prep	Solid-Phase Extraction (SPE)	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Hart & Hickman, PC
Project/Site: DS0.PFAS

Job ID: 410-256929-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
410-256929-1	DC-SPOT-3	Water	12/09/25 14:30	12/10/25 10:40	North Carolina
410-256929-2	DC-SPOT-4	Water	12/09/25 14:40	12/10/25 10:40	North Carolina
410-256929-3	DC-DET-1	Water	12/09/25 14:55	12/10/25 10:40	North Carolina

410-256929 Chain of Custody

Chain of Custody Record

eurofins | Environment Testing America

	Sampler: SQM	Lab PM: Barnhart, David	Carrier Tracking No(s):	COC No: 410-159585-44129.6
Client Contact: Sam Martin	Phone: (704) 586-0007	E-Mail: david.barnhart@et.eurofinsus.com	State of Origin: North Carolina	Page: Page 1 of 1
Company: Hart & Hickman, PC	PWSID:	Analysis Requested		Job #: DS0.PFAS
Address: 2923 S Tryon Street Suite 100	Due Date Requested:			Preservation Codes:
City: Charlotte	TAT Requested (business days): 10 Business Days			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NC, 28203	Compliance Project: Δ Yes Δ No			
Phone: 704-586-0007	H&H PO #: DS0.PFAS			Other:
Email: smartint@harthickman.com	WO #:			
Project Name: DS0.PFAS	Lab Project #: 41025876			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537 Mod_List of 40 based on EPA method	TOPS (Post)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
DC-SPOT-3	12/9/25	14:30	G	Water	N	N	X	X	5	* Please report J Flags and report
DC-SPOT-4	12/9/25	14:40	G	Water	N	N	X	X	5	non-detects as <MDLs
DC-DET-1	12/9/25	14:55	G	Water	N	N	X	X	5	*EDD formats: H&H, DSCA, NCDEQ
										*samples-SPOT and -DET may have high levels of solvent/concentrated

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 12/9/25 1700	Company H+H	Received by:
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by: Date/Time: 12/10/25 10:40 Company EUGT

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: R: 4.5 C: 4.2

NJ

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Hart & Hickman, PC

Job Number: 410-256929-1

Login Number: 256929

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Santiago, Nathaniel

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	