DBS&A
a Geo-Logic Company

September 10, 2024

Amy Ewing
Hazen and Sawyer
100 Sun Avenue NE, Suite 206
Albuquerque, New Mexico 87109

Re: Summary of Field Activities and Analytical Results
Second Quarter Groundwater Monitoring Event
City of Santa Fe Paseo Real Wastewater Reclamation Facility

Dear Ms. Ewing:

Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to provide this letter report to Hazen and Sawyer (Hazen) summarizing results of the second quarter groundwater monitoring event conducted at the City of Santa Fe (the City) Paseo Real Wastewater Reclamation Facility (PRWRF) in Santa Fe, New Mexico (the site) (Figure 1).

Background

The City historically used the site as a facility for sludge disposal by land application. The PRWRF was constructed in the 1960s. The first discharge permit was issued for the land application of sludge in June 1984, but it is unknown when the practice began. Land application activities were discontinued on March 9, 2022. Historical land application areas prior to and after 2010 are shown on Figure 1.

Soil and hydromulch were applied to the ground surface after land application of sludge was discontinued at the site. There are seven groundwater monitor wells associated with the site. MW-3 is located hydrologically upgradient of the facility. MW-1, MW-2, MW-5, MW-6, and MW-7 are located hydrologically downgradient of the facility's former disposal areas. MW-4A is located hydrologically downgradient of the facility's outfall to the Santa Fe River (Figure 1). The wells were previously sampled by DBS&A in August 2023.

Sampling Analytes

This water quality sampling was performed to evaluate whether there is poly- and perfluoroalkyl substances (PFAS) contamination in groundwater below the former sludge disposal facility. PFAS analytes and their acronyms are listed in Table 1. PFAS analytes with detections in June 2024 and applicable screening levels are listed in Table 2. The applicable screening levels are State of New Mexico site investigation screening levels for tap water developed by the New Mexico Environment Department (NMED) Hazardous Waste Bureau and Ground Water Quality Bureau based on human health risk assessments (NMED, 2022).

Scope of Work

All activities were conducted in accordance with the approved scope of work. Field notes documenting sample collection activities are provided in Attachment 1.

Prior to the second quarter groundwater monitoring event, DBS&A conducted a site visit for the purpose of inspecting each of the seven monitor wells to determine what supplies and equipment were needed to collect groundwater samples. Previous groundwater sampling at the site has been performed with garden hose discharge lines, which may not be suitable for PFAS sample collection. DBS&A replaced the discharge lines for each well with dedicated PFAS-free tubing.

Groundwater monitoring was conducted at the site on June 20 and 21, 2024. The quarterly monitoring event included measurement of water levels and collection of groundwater samples from monitor wells associated with the site (MW-1 through MW-7) (Figure 1). One duplicate sample and two field blank quality control samples were also collected.

Groundwater monitoring activities were conducted in accordance with the procedures and protocols set forth in the approved scope of work, which include eliminating potential sources of PFAS in field clothing, field equipment, sample containers, and supplies for equipment decontamination. For example, items banned from the work area included clothing washed with fabric softener, plastic clipboards and binders, adhesives, all materials containing Teflon, and most brands of waterproof field logbooks. DBS&A personnel refrain from the use of cosmetics, hand creams, moisturizers, sunscreen, and insect repellant when sampling for PFAS. These protocols are discussed at daily tailgate safety meetings and are strictly enforced. DBS&A has based these protocols on guidance published by the California State Water Resources Control Board (SWRCB) Division of Drinking Water (SWRCB, 2020).

Fluid levels were gauged in the monitor wells using a decontaminated electronic water level indicator. Water level elevations are provided in Table 3.

Prior to sampling, monitor wells were purged of a minimum of three casing volumes using dedicated pumps. Field parameters, including specific conductivity, pH, and temperature, were measured in the monitor wells during purging and recorded on the field sampling records (Attachment 1).

The groundwater samples collected from the monitor wells were analyzed for PFAS using U.S. Environmental Protection Agency (EPA) method 1633. Enthalpy Analytical Laboratory (Enthalpy) in El Dorado Hills, California performed all chemical analysis of the groundwater samples following their corporate quality assurance program. Samples were preserved on ice and accompanied by full chain of custody documentation at all times in accordance with industry best practices and DBS&A standard operating procedures (SOPs).

Results

Water Level Elevations

Water levels measured in monitor wells during the current monitoring event are presented in Table 3.

Water levels measured during the current monitoring event were used to construct the potentiometric surface map provided in Figure 2. Groundwater flow direction at the site was generally to the southwest, with a gradient of 0.0015 foot per foot (ft/ft).

Analytical Results

Groundwater analytical results for the PFAS analytes that were detected and/or have applicable screening levels are summarized in Table 2 and on Figure 3. The complete laboratory report, including chain of custody, is provided in Attachment 2.

PFAS analytes were detected in two of the seven sampled wells:

- MW-1: PFBA (10.6 nanograms per liter [ng/L]), PFPeA (21.7 ng/L), PFHxA (21.1 ng/L), PFHpA (4.13 ng/L), PFOA (7.03 ng/L), PFBS (14.2 ng/L), PFPeS (2.24 ng/L), and PFHxS (7.16 ng/L)
- MW-4A: PFBS (2.67 ng/L)

Concentrations of all PFAS were below the NMED tap water noncancer screening levels provided in the NMED November 2022 risk assessment guidance document (NMED, 2022). PFAS were not detected at concentrations above laboratory reporting limits in wells MW-2, MW-3, MW-5, MW-6, and MW-7. MW-1 is located on the west side of the facility. MW-4A is located northwest of the facility and downgradient of the outfall, near the discharge channel to the Santa Fe River.

PFAS were not detected at concentrations above laboratory reporting limits in the duplicate sample (MW-8), which is consistent with analytical results in the corresponding primary sample collected from MW-5 (Table 2). Concentrations of all PFAS were below laboratory reporting limits in the field blank quality control samples (Attachment 2).

Conclusions and Recommendations

A total of seven monitor wells were sampled as part of the second quarter groundwater monitoring event at the site. Based on the results of the current groundwater monitoring event, DBS&A provides the following conclusions regarding groundwater conditions at the site:

- Groundwater beneath the site flows to the southwest.

- PFAS were detected in samples collected from MW-1 (eight analytes) and MW-4A (one analyte) at concentrations below the NMED screening levels.

Based on the findings of the groundwater monitoring, DBS&A recommends that quarterly groundwater monitoring continue at the site through the first quarter 2025 under the approved scope of work to assess long-term or seasonal trends in groundwater quality.

Closing

This letter report serves as the deliverable for the second quarter groundwater monitoring event at the site, as specified in the approved scope of work. Please contact me at (505) 822-9400 with any questions.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

Patrice N. Feltman, P.G.
Geologist/Project Manager

PNF/rpf
Attachments

Reference

New Mexico Environment Department (NMED). 2022. *Risk assessment for site investigations and remediation, Volume I: Soil screening guidance for human health risk assessments.* November 2022.

Figures

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Base image source: Google Earth Pro, March 2021

Figure 1

CITY OF SANTA FE
PASEO REAL WATER RECLAMATION FACILITY
Site Map

DBS&A
a Geo-Logic Company

9/6/2024
DB24.1212

S:\PROJECTS\DB24.1212_HAZEN_PRWRF_SERVICES\GIS\ARCGIS PRO\GROUNDWATER_SAMPLING_REPORTS\HAZEN_GWSR_202406.APRX

Base image source: Google Earth Pro, March 2021

CITY OF SANTA FE

PASEO REAL WATER RECLAMATION FACILITY

Potentiometric Surface Elevations

June 20, 2024

Figure 2

DBS&A
a Geo-Logic Company

9/6/2024

DB24.1212

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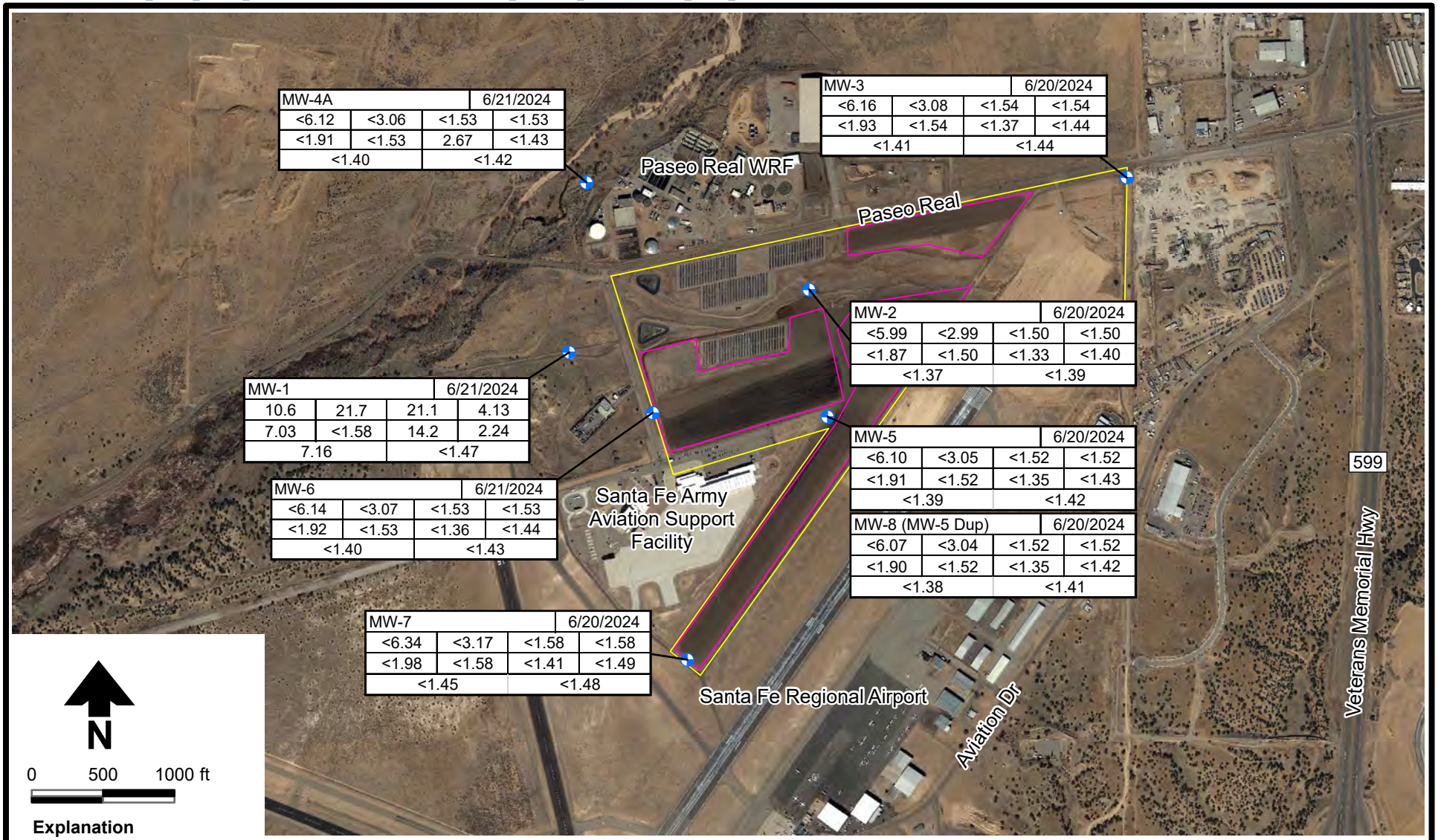

Explanation

- Monitor well
- Approximate area of land application after 2010
- Approximate area of land application prior to 2010

Note: All concentrations reported in nanograms per liter (ng/L)

Location designation			Sample Date
PFBA	PFPeA	PFHxA	PFHpA
PFOA	PFNA	PFBS	PFPeS
PFHxS		PFOS	

Base image source: Google Earth Pro, March 2021

CITY OF SANTA FE
PASEO REAL WATER RECLAMATION FACILITY
Distribution of PFAS Contaminants
June 20 and 21, 2024

Figure 3

DBS&A a Geo-Logic Company

9/6/2024 DB24.1212

Tables

Table 1. PFAS Target Analytes

Analyte Name	Acronym
Perfluorobutanoic acid	PFBA
Perfluoropentanoic acid	PFPeA
Perfluorohexanoic acid	PFHxA
Perfluoroheptanoic acid	PFHpA
Perfluorooctanoic acid	PFOA
Perfluorononanoic acid	PFNA
Perfluorobutane sulfonic acid	PFBS
Perfluoropentane sulfonic acid	PFPeS
Perfluorohexane sulfonic acid	PFHxS
Perfluorooctane sulfonic acid	PFOS

Table 2. Groundwater Chemistry Analytical Data

Well Name	Sample Date	Concentration [a] (ng/L)									
		PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFBS	PFPeS	PFHxS	PFOS
NMED Screening Level [b]		*None*	*None*	*None*	*None*	*60.2*	*60.2*	*6,020*	*None*	*401*	*60.2*
MW-1	6/21/2024	10.6	21.7	21.1	4.13	7.03	<1.58	14.2	2.24	7.16	<1.47
MW-2	6/20/2024	<5.99	<2.99	<1.50	<1.50	<1.87	<1.50	<1.33	<1.40	<1.37	<1.39
MW-3	6/20/2024	<6.16	<3.08	<1.54	<1.54	<1.93	<1.54	<1.37	<1.44	<1.41	<1.44
MW-4A	6/21/2024	<6.12	<3.06	<1.53	<1.53	<1.91	<1.53	2.67	<1.43	<1.40	<1.42
MW-5	6/20/2024	<6.10	<3.05	<1.52	<1.52	<1.91	<1.52	<1.35	<1.43	<1.39	<1.42
MW-6	6/21/2024	<6.14	<3.07	<1.53	<1.53	<1.92	<1.53	<1.36	<1.44	<1.40	<1.43
MW-7	6/20/2024	<6.34	<3.17	<1.58	<1.58	<1.98	<1.58	<1.41	<1.49	<1.45	<1.48
MW-8 (MW-5 Dup)	6/20/2024	<6.07	<3.04	<1.52	<1.52	<1.90	<1.52	<1.35	<1.42	<1.38	<1.41

Bold indicates that value exceeds the New Mexico Environment Department (NMED) tap water noncancer screening level.

[a] Analyzed using U.S. Environmental Protection Agency (EPA) method 1633.

[b] NMED screening level, tap water, noncancer

ng/L = Nanograms per liter

Table 3. Water Level Data

Well Name	Top of Casing Elevation [a] (feet msl)	Total Depth[b] (feet bgs)	Screened Interval[b] (feet bgs)	Date Measured	Depth to Groundwater (feet btoc)	Groundwater Elevation (feet msl)
MW-1	6,282.29	150	130-150	6/20/2024	128.65	6,153.64
MW-2	6,301.40	170	130-150	6/20/2024	146.81	6,154.59
MW-3	6,339.16	214	194-214	6/20/2024	179.89	6,159.27
MW-4A	Unknown	Unknown	Unknown	6/20/2024	117.84	NA
MW-5	6,341.69	204	184-204	6/20/2024	187.57	6,154.12
MW-6	6,327.65	186	166-186	6/20/2024	174.00	6,153.65
MW-7	6,325.24	215	166-186	6/20/2024	172.69	6,152.55

[a] Provided by City of Santa Fe 2024 Quarter 1 DP-135 Report.

[b] Approximate depth

msl = Above mean sea level
bgs = Below ground surface
btoc = Below top of casing
NA = Not applicable

Attachment 1

Field Notes

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Daniel B. Stephens & Associates, Inc.

GROUNDWATER METER CALIBRATION SHEET

Project Name: Lasco Real WRF Sampler: J. Fisher

Project #: DB 24.1212.00 Date: 4/20/24

Project Manager: J. Fisher/P. Faltman

pH	Temp (°C)	6/21/24 Comments
(4) 4.00/4.00	25.0	4.00/4.01 @ 25.4°C
(7) 7.00/7.00	25.2	7.00/7.00@26.6°C
(10) 10.00/10.02	25.5	10.00/10.00 @ 26.6°C
SpCon (µs/cm)	Temp (°C)	Comments
(1413) 1413/1414	25.1	1413/1413@26.7°C
ORP (mv)	Temp (°C)	Comments
223.7/223.7	24.5	221.0/221.1 mV @ 26.3°C
Dissolved O_2	Temp (°C)	Comments
(%)		80.2% @ 24.7°C
(mg/L) 3.7	25.0	4.0 mg/L @ 24.3°C
Pressure	Temp (°C)	Comments
(mmHg) 609.8	25.1	609.2 @ 24.7°C

Comments: YSI Quatro SN: 21B100053

C:\Users\453\Desktop\Field forms\Groundwater Sampling\GROUNDWATER METER CALIBRATION DATA SHEET.docx

Daniel B. Stephens & Associates, Inc.

GROUNDWATER ELEVATION DATA SHEET

Project Name: Pasco Road WRTF Sampler: J. Fisher

Project #: DB24.1212.00 Sample Date: 4/20/24

Project Manager: J. Fisher / P. Fullman Sheet # 1 of 1

Well ID	Depth to NAPL	Depth to Water	Total Depth	Comments: (well dia., sampled, condition)
MW-3	—	179.89	~~150~~ 214	
MW-2	—	146.81	170	
MW-5	—	187.57	204	
MW-7	—	172.69	200	No Lock on Vault
MW-6	—	174.00	186	" "
MW-1	—	128.65	150	
MW-4	—	117.84	135	

Comments:

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Paseo Real WRF
Project #: DB24.1212.00
Project Manager: P. Feltman/J. Fisher

Sampler: J. Fisher
Sample Date: ~~6/20/2024~~ 6/21/24
Sample Time: 1220

Well #: MW-1
Well Diameter: 4.5 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 128.65 (feet btoc)
Total Depth of Well: 150 (feet)

Height of Water Column: 21.35 (feet)
Casing Volume: 17.51 (gal)
Purge Volume: 52.52 (gal)
Purge Method: Dedicated submersible pump

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 4.5" = 0.82 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity ~~(NTU)~~
Initial	7.57	16.5	583	132.9	6.3	CLEAR
1	7.42	15.8	597	111.9	6.6	CLEAR
2	7.46	15.9	595	96.6	6.8	CLEAR
3	7.48	15.9	598	86.0	6.5	CLEAR

Sample Description: 2-500mL Poly - 1-125mL Poly

Physical Observations: Clear, No Odor

Analytical Method(s): PFAS

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Paseo Real WRF
Project #: DB24.1212.00
Project Manager: P. Feltman/J. Fisher

Sampler: J. Fisher
Sample Date: 6/20/2024
Sample Time: 1215

Well #: MW-2
Well Diameter: 5 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 146.55* (feet btoc)
Total Depth of Well: 170 (feet)

Height of Water Column: 23.45 (feet)
Casing Volume: 23.919 (gal)
Purge Volume: 71.76 (gal)
Purge Method: Dedicated submersible pump

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 4.5" = 0.82 gal/ft; 5.0" = 1.02 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity ~~(NTU)~~
Initial	7.47	18.5	226.9	174.0	7.4	CLEAR
1	7.65	16.2	226.5	120.9	7.6	CLEAR
2	7.53	16.1	227.1	105.9	7.7	CLEAR
3	7.49	16.3	222.7	96.2	7.2	CLEAR

Sample Description: 2-500ml Poly, 1-125mL Poly

Physical Observations: Clear No Odor

Analytical Method(s): PFAS

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Paseo Real WRF
Project #: DB24.1212.00
Project Manager: P. Feltman/J. Fisher

Sampler: J. Fisher
Sample Date: 6/20/2024
Sample Time: 1130

Well #: MW-3
Well Diameter: 5 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 179.89 (feet btoc)
Total Depth of Well: 214 (feet)

Height of Water Column: 34.11 (feet)
Casing Volume: 34.79 (gal)
Purge Volume: 104.4 (gal)
Purge Method: Dedicated submersible pump

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 4.5" = 0.82 gal/ft; 5.0" = 1.02 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity ~~(NTU)~~
Initial	7.91	17.8	220.3	208.0	5.4	CLEAR
1	~~8.00~~	16.4	250.1	200.0	5.4	CLEAR
2		DRY @ ~43 GALLONS				
3						

Sample Description: 2-500mL Poly, 1-125mL Poly

Physical Observations: Clear, No Odor

Analytical Method(s): PFAS

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Paseo Real WRF
Project #: DB24.1212.00
Project Manager: P. Feltman/J. Fisher

Sampler: J. Fisher
Sample Date: ~~6/20/2024~~ 6/21/24
Sample Time: 1300

Well #: MW-4
Well Diameter: 4.0 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 17.84 (feet btoc)
Total Depth of Well: 135 (feet)

Height of Water Column: 17.16 (feet)
Casing Volume: 11.15 (gal)
Purge Volume: 33.46 (gal)
Purge Method: Dedicated submersible pump

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 4.5" = 0.82 gal/ft; 5.0" = 1.02 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity ~~(NTU)~~
Initial	7.27	16.4	377.9	127.5	4.4	Clear
1	7.27	16.4	368.7	64.8	5.7	Clear
2	7.22	16.5	377.2	54.2	6.1	Clear
3	7.20	16.5	379.1	66.9	6.2	Clear

Sample Description: 2-500mL Poly, 1-125mL Poly

Physical Observations: Clear, No Odor

Analytical Method(s): PFAS

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Paseo Real WRF
Project #: DB24.1212.00
Project Manager: P. Feltman/J. Fisher

Sampler: J. Fisher
Sample Date: 6/20/2024
Sample Time: 1255

Well #: MW-5
Well Diameter: 4.0 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 187.90 (feet btoc)
Total Depth of Well: 204 (feet)

Height of Water Column: 16.1 (feet)
Casing Volume: 10.47 (gal)
Purge Volume: 31.40 (gal)
Purge Method: Dedicated submersible pump

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 4.5" = 0.82 gal/ft; 5.0" = 1.02 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity ~~(NTU)~~
Initial	7.68	16.6	186.6	118.3	4.9	CLEAR
1	7.84	16.6	193.0	114.7	6.9	
2	7.88	16.5	193.0	112.4	6.7	
3	7.90	16.5	190.0	111.9	6.5	

Sample Description: (2-500ml Poly, 1-~~250~~ 125mL Poly) x2
Also Collected Dup MW-8

Physical Observations: Clear No Odor

Analytical Method(s): PFAS

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Paseo Real WRF
Project #: DB24.1212.00
Project Manager: P. Feltman/J. Fisher

Sampler: J. Fisher
Sample Date: ~~6/20/2024~~ 6/21/24
Sample Time: 1100

Well #: MW-6
Well Diameter: 4.0 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 174.00 (feet btoc)
Total Depth of Well: 186 (feet)

Height of Water Column: 12.00 (feet)
Casing Volume: 7.80 (gal)
Purge Volume: 23.4 (gal)
Purge Method: Dedicated submersible pump

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 4.5" = 0.82 gal/ft; 5.0" = 1.02 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity ~~(NTU)~~
Initial	7.56	16.1	203.1	153.0	4.1	CLEAR
1		DRY @ ~15 GALLONS (INCLUDING DRAW PUMP)				
2						
3						

Sample Description: 2-500mL Poly, 1-125mL Poly

Physical Observations: Clear, No Odor

Analytical Method(s): PFAS

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Paseo Real WRF
Project #: DB24.1212.00
Project Manager: P. Feltman/J. Fisher

Sampler: J. Fisher
Sample Date: 6/20/2024
Sample Time: 1330

Well #: MW-7
Well Diameter: 4.0 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 173.16* (feet btoc)
Total Depth of Well: 200 (feet)

Height of Water Column: 26.84 (feet)
Casing Volume: 17.45 (gal)
Purge Volume: 52.34 (gal)
Purge Method: Dedicated submersible pump

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 4.5" = 0.82 gal/ft; 5.0" = 1.02 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	7.80	15.1	209.9	111.6	6.0	CLEAR
1	7.81	16.5	214.6	111.5	7.1	CLEAR
2	7.86	16.7	214.1	108.9	6.9	CLEAR
3	7.86	16.6	217.5	108.7	7.5	CLEAR

Sample Description: 2-500mL Poly, 1-125mL Poly

Physical Observations: Clear, No Odor

Analytical Method(s): PFAS

Projects (continued)

	Well Diameter	TD
MW-1	4.5"	150'
MW-2	5"	170'
MW-3	5"	214'
MW-4	4"	135'
MW-5	4"	204'
MW-6	4"	186'
MW-7	4"	200'

Printed in China

6/20/24 J. FISHER

0955 ONSITE @ ADMIN BUILDING TO SIGN IN & GET WELL KEYS FROM PATRICIA ROSICKER (IN THE LAB).

1005 @ CEMENT PLANT. CHECK IN @ OFFICE.

1015 @ MW-3. CALIBRATE YSI. SEE FORM FOR DETAILS.

1035 SET UP TO SAMPLE MW-3.

1130 COLLECT SAMPLE @ MW-3. SEE FORMS FOR DETAILS

1150 @ MW-2. CANNOT GAUGE WATER LEVEL DUE TO WELLHEAD SET UP. WILL ASSUME IT IS CLOSE TO 146.55 FROM 1ST QUARTER.

1215 COLLECT SAMPLE @ MW-2.

1225 COLLECT FIELD BLANK.

1255 COLLECT SAMPLE @ MW-5. & DUPLICATE SAMPLE.

1330 COLLECT SAMPLE @ MW-7.

1405 @ MW-6. CANNOT GET GENERATOR TO START.

1415 RETURN KEYS. OFFSITE.

[signature] 6/20/24

6/21/24 J. FISHER

1015 ONSITE @ LAB TO GET KEYS & TALK TO PATRICIA.

1030 @ MW-6. CALIBRATE YSI. SEE FORM FOR DETAILS.

1045 SET UP TO SAMPLE MW-6.

1100 COLLECT SAMPLE @ MW-6

1110 COLLECT FIELD BLANK.

1220 COLLECT SAMPLE @ MW-1.

1300 COLLECT SAMPLE @ MW-4. ALL SAMPLES PLACED ON ICE. PACKUP.

1315 RETURN KEYS TO LAB.

1330 OFFSITE

[signature] 6/21/24

Attachment 2

Laboratory Analytical Report

DBS&A
a Geo-Logic Company

July 19, 2024

Enthalpy Analytical - El Dorado Hills
Work Order No. 2406188

Ms. Amy Ewing
Hazen & Sawyer
100 Sun Ave NE, Ste 206
Albuquerque, NM 87109

Dear Ms. Ewing,

Enclosed are the results for the sample set received at Enthalpy Analytical - EDH on June 25, 2024 under your Project Name 'DB24.1212.00'.

Enthalpy Analytical - EDH is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at emilyuebelhoer@enthalpy.com.

Thank you for choosing Enthalpy Analytical - EDH as part of your analytical support team.

Sincerely,

C.R. Whitehead For

Emily Uebelhoer
Project Manager

Enthalpy Analytical - EDH certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Enthalpy Analytical - EDH .

Enthalpy Analytical - EDH Work Order No. 2406188
Case Narrative

Sample Condition on Receipt:

Ten aqueous samples were received and stored securely in accordance with Enthalpy Analytical - EDH standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements. Sample time discrepancies were noted for the samples between the container labels and the Chain-of-Custody (CoC). The sample times have been reported as listed on the CoC.

Analytical Notes:

EPA Method 1633 (Aqueous)

The samples were extracted and analyzed for a selected list of PFAS using EPA Method 1633. The results for PFHxS, PFOA, PFOSA, PFOS, PFNA, MeFOSAA, EtFOSAA, MeFOSA, MeFOSE, EtFOSA, EtFOSE include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank, Ongoing Precision and Recovery (OPR) sample, and Low-Level OPR sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2406188-01	MW-3	20-Jun-24 11:30	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL
2406188-02	MW-2	20-Jun-24 12:15	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL
2406188-03	Field Blank	20-Jun-24 12:25	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL
2406188-04	MW-5	20-Jun-24 12:55	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL
2406188-05	MW-8	20-Jun-24 12:55	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL
2406188-06	MW-7	20-Jun-24 13:30	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL
2406188-07	MW-6	21-Jun-24 11:00	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL
2406188-08	MW-1	21-Jun-24 12:20	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL
2406188-09	Field Blank	21-Jun-24 11:10	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL
2406188-10	MW-4	21-Jun-24 13:00	25-Jun-24 10:06	HDPE Bottle, 500 mL
				HDPE Bottle, 500 mL
				HDPE Bottle, 125 mL

ANALYTICAL RESULTS

Sample ID: Method Blank **EPA Method 1633**

Client Data
Name: Hazen & Sawyer Matrix: Aqueous
Project: DB24.1212.00

Laboratory Data
Lab Sample: B24G035-BLK1 Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	6.40		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFMPA	ND	3.20		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
3:3 FTCA	ND	8.00		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFPeA	ND	3.20		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFMBA	ND	3.20		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFBS	ND	1.42		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
4:2 FTS	ND	6.00		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFHxA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFEESA	ND	2.85		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFPeS	ND	1.50		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
HFPO-DA	ND	6.68		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
NFDHA	ND	3.20		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
5:3 FTCA	ND	40.0		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFHpA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
ADONA	ND	6.32		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFHxS	ND	1.46		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
6:2 FTS	ND	6.07		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFOA	ND	2.00		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFHpS	ND	1.52		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
7:3 FTCA	ND	40.0		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFNA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFOSA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFOS	ND	1.49		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
9Cl-PF3ONS	ND	6.24		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFDA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
8:2 FTS	ND	6.14		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFNS	ND	1.54		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
MeFOSAA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
EtFOSAA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFUnA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFDS	ND	1.54		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
11Cl-PF3OUdS	ND	6.00		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFDoA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
MeFOSA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFTrDA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFDoS	ND	1.55		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
PFTeDA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
EtFOSA	ND	1.60		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1

Sample ID: Method Blank

EPA Method 1633

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous

Laboratory Data

Lab Sample: B24G035-BLK1
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
MeFOSE	ND	16.0		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
EtFOSE	ND	16.0		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	86.2	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C5-PFPeA	IS	101	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C2-4:2 FTS	IS	87.2	40 - 200		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C3-PFBS	IS	87.2	40 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C5-PFHxA	IS	91.9	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C4-PFHpA	IS	93.6	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C3-HFPO-DA	IS	89.6	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C2-6:2 FTS	IS	83.4	40 - 200		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C8-PFOA	IS	76.4	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C3-PFHxS	IS	90.8	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C9-PFNA	IS	82.8	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C2-8:2 FTS	IS	87.7	40 - 300		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C6-PFDA	IS	80.9	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
d3-MeFOSAA	IS	71.3	40 - 170		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C8-PFOS	IS	85.3	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
d5-EtFOSAA	IS	61.0	25 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C7-PFUnA	IS	80.1	30 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C8-PFOSA	IS	52.2	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C2-PFDoA	IS	61.7	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
13C2-PFTeDA	IS	53.9	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
d7-MeFOSE	IS	27.5	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
d3-MeFOSA	IS	23.1	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
d9-EtFOSE	IS	24.3	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1
d5-EtFOSA	IS	16.7	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 06:46	1

RL - Reporting limit

Results reported to RL.

Sample ID: OPR **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous

Laboratory Data

Lab Sample: B24G035-BS1
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	21.0	20.0	105	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFMPA	10.0	10.0	100	55 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
3:3 FTCA	22.9	25.0	91.6	65 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFPeA	10.5	10.0	105	65 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFMBA	10.5	10.0	105	60 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFBS	4.65	4.44	105	60 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
4:2 FTS	20.7	18.8	110	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFHxA	5.03	5.00	101	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFEESA	10.3	8.88	116	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFPeS	4.58	4.72	97.0	65 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
HFPO-DA	21.4	21.2	101	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
NFDHA	11.2	10.0	112	50 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
5:3 FTCA	116	125	93.3	70 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFHpA	5.17	5.00	103	70 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
ADONA	19.5	20.0	97.3	65 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFHxS	4.92	4.56	108	65 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
6:2 FTS	20.4	19.0	108	65 - 155		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFOA	6.14	5.00	123	70 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFHpS	4.51	4.76	94.8	70 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
7:3 FTCA	96.0	125	76.9	50 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFNA	5.66	5.00	113	70 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFOSA	5.45	5.00	109	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFOS	4.55	4.64	98.0	55 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
9Cl-PF3ONS	19.9	19.8	100	70 - 155		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFDA	5.04	5.00	101	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
8:2 FTS	17.9	19.2	93.3	60 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFNS	4.69	4.80	97.6	65 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
MeFOSAA	5.79	5.00	116	50 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
EtFOSAA	4.94	5.00	98.8	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFUnA	5.30	5.00	106	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFDS	4.11	4.84	84.9	60 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
11Cl-PF3OUdS	15.4	20.0	76.9	55 - 160		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFDoA	5.35	5.00	107	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
MeFOSA	5.26	5.00	105	60 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1

Sample ID: OPR **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous

Laboratory Data

Lab Sample: B24G035-BS1
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFTrDA	5.69	5.00	114	65 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFDoS	3.51	4.84	72.6	50 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
PFTeDA	5.68	5.00	114	60 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
EtFOSA	5.09	5.00	102	65 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
MeFOSE	55.0	50.0	110	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
EtFOSE	53.9	50.0	108	70 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	90.4	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C5-PFPeA	IS	94.5	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C2-4:2 FTS	IS	87.4	40 - 200		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C3-PFBS	IS	96.9	40 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C5-PFHxA	IS	87.6	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C4-PFHpA	IS	89.0	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C3-HFPO-DA	IS	85.9	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C2-6:2 FTS	IS	88.4	40 - 200		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C8-PFOA	IS	84.0	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C3-PFHxS	IS	94.4	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C9-PFNA	IS	91.4	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C2-8:2 FTS	IS	91.6	40 - 300		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C6-PFDA	IS	86.7	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
d3-MeFOSAA	IS	66.7	40 - 170		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C8-PFOS	IS	84.6	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
d5-EtFOSAA	IS	61.6	25 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C7-PFUnA	IS	82.1	30 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C8-PFOSA	IS	49.6	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C2-PFDoA	IS	62.1	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
13C2-PFTeDA	IS	56.1	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
d7-MeFOSE	IS	25.2	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
d3-MeFOSA	IS	20.6	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
d9-EtFOSE	IS	21.7	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1
d5-EtFOSA	IS	16.5	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:00	1

Sample ID: OPR **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous

Laboratory Data

Lab Sample: B24G035-BS2
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	13.7	12.8	107	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFMPA	6.86	6.40	107	55 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
3:3 FTCA	14.8	16.0	92.7	65 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFPeA	6.75	6.40	105	65 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFMBA	7.06	6.40	110	60 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFBS	3.28	2.84	116	60 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
4:2 FTS	12.3	12.0	103	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFHxA	3.72	3.20	116	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFEESA	6.88	5.68	121	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFPeS	3.10	3.01	103	65 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
HFPO-DA	12.7	12.8	98.8	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
NFDHA	7.93	6.40	124	50 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
5:3 FTCA	73.5	80.0	91.9	70 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFHpA	3.23	3.20	101	70 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
ADONA	11.6	12.1	96.1	65 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFHxS	3.02	2.92	103	65 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
6:2 FTS	12.9	12.2	106	65 - 155		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFOA	3.84	3.20	120	70 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFHpS	3.23	3.05	106	70 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
7:3 FTCA	61.0	80.0	76.2	50 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFNA	4.20	3.20	131	70 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFOSA	3.36	3.20	105	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFOS	2.93	2.97	98.7	55 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
9Cl-PF3ONS	11.9	12.0	99.2	70 - 155		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFDA	3.49	3.20	109	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
8:2 FTS	12.6	12.3	103	60 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFNS	2.97	3.08	96.4	65 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
MeFOSAA	3.49	3.20	109	50 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
EtFOSAA	3.66	3.20	114	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFUnA	3.80	3.20	119	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFDS	2.74	3.09	88.6	60 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
11Cl-PF3OUdS	9.08	12.1	75.2	55 - 160		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFDoA	3.52	3.20	110	70 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
MeFOSA	3.20	3.20	100	60 - 150		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1

Sample ID: OPR **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous

Laboratory Data

Lab Sample: B24G035-BS2
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFTrDA	3.67	3.20	115	65 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFDoS	2.09	3.10	67.2	50 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
PFTeDA	3.92	3.20	122	60 - 140		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
EtFOSA	3.80	3.20	119	65 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
MeFOSE	35.2	32.0	110	70 - 145		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
EtFOSE	35.4	32.0	111	70 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	89.2	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C5-PFPeA	IS	98.9	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C2-4:2 FTS	IS	92.2	40 - 200		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C3-PFBS	IS	97.4	40 - 135		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C5-PFHxA	IS	89.7	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C4-PFHpA	IS	93.1	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C3-HFPO-DA	IS	92.6	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C2-6:2 FTS	IS	87.8	40 - 200		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C8-PFOA	IS	84.3	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C3-PFHxS	IS	91.0	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C9-PFNA	IS	87.8	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C2-8:2 FTS	IS	90.4	40 - 300		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C6-PFDA	IS	85.9	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
d3-MeFOSAA	IS	69.1	40 - 170		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C8-PFOS	IS	89.6	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
d5-EtFOSAA	IS	62.5	25 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C7-PFUnA	IS	78.8	30 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C8-PFOSA	IS	49.4	40 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C2-PFDoA	IS	64.4	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
13C2-PFTeDA	IS	50.1	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
d7-MeFOSE	IS	27.3	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
d3-MeFOSA	IS	23.1	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
d9-EtFOSE	IS	24.0	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1
d5-EtFOSA	IS	17.2	10 - 130		B24G035	08-Jul-24	0.500 L	11-Jul-24 07:13	1

Sample ID: MW-3 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 11:30

Laboratory Data

Lab Sample: 2406188-01
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	6.16		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFMPA	ND	3.08		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
3:3 FTCA	ND	7.71		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFPeA	ND	3.08		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFMBA	ND	3.08		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFBS	ND	1.37		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
4:2 FTS	ND	5.78		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFHxA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFEESA	ND	2.75		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFPeS	ND	1.44		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
HFPO-DA	ND	6.43		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
NFDHA	ND	3.08		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
5:3 FTCA	ND	38.5		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFHpA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
ADONA	ND	6.09		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFHxS	ND	1.41		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
6:2 FTS	ND	5.85		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFOA	ND	1.93		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFHpS	ND	1.46		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
7:3 FTCA	ND	38.5		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFNA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFOSA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFOS	ND	1.44		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
9Cl-PF3ONS	ND	6.01		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFDA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
8:2 FTS	ND	5.91		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFNS	ND	1.48		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
MeFOSAA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
EtFOSAA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFUnA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFDS	ND	1.48		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
11Cl-PF3OUdS	ND	5.78		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFDoA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
MeFOSA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFTrDA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFDoS	ND	1.49		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
PFTeDA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1

Sample ID: MW-3

EPA Method 1633

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 11:30

Laboratory Data

Lab Sample: 2406188-01
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.54		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
MeFOSE	ND	15.4		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
EtFOSE	ND	15.4		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	86.1	10 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C5-PFPeA	IS	87.4	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C2-4:2 FTS	IS	100	40 - 200		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C3-PFBS	IS	105	40 - 135		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C5-PFHxA	IS	79.0	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C4-PFHpA	IS	83.7	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C3-HFPO-DA	IS	81.4	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C2-6:2 FTS	IS	96.0	40 - 200		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C8-PFOA	IS	86.1	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C3-PFHxS	IS	96.8	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C9-PFNA	IS	95.5	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C2-8:2 FTS	IS	90.5	40 - 300		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C6-PFDA	IS	83.5	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
d3-MeFOSAA	IS	79.1	40 - 170		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C8-PFOS	IS	81.9	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
d5-EtFOSAA	IS	70.8	25 - 135		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C7-PFUnA	IS	83.7	30 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C8-PFOSA	IS	76.1	40 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C2-PFDoA	IS	67.4	10 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
13C2-PFTeDA	IS	69.7	10 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
d7-MeFOSE	IS	53.4	10 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
d3-MeFOSA	IS	28.4	10 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
d9-EtFOSE	IS	51.3	10 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1
d5-EtFOSA	IS	17.6	10 - 130		B24G035	08-Jul-24	0.519 L	13-Jul-24 21:07	1

RL - Reporting limit

Results reported to RL.

Sample ID: MW-2 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 12:15

Laboratory Data

Lab Sample: 2406188-02
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	5.99		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFMPA	ND	2.99		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
3:3 FTCA	ND	7.49		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFPeA	ND	2.99		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFMBA	ND	2.99		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFBS	ND	1.33		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
4:2 FTS	ND	5.62		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFHxA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFEESA	ND	2.67		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFPeS	ND	1.40		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
HFPO-DA	ND	6.25		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
NFDHA	ND	2.99		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
5:3 FTCA	ND	37.4		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFHpA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
ADONA	ND	5.91		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFHxS	ND	1.37		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
6:2 FTS	ND	5.68		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFOA	ND	1.87		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFHpS	ND	1.42		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
7:3 FTCA	ND	37.4		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFNA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFOSA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFOS	ND	1.39		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
9Cl-PF3ONS	ND	5.84		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFDA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
8:2 FTS	ND	5.75		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFNS	ND	1.44		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
MeFOSAA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
EtFOSAA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFUnA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFDS	ND	1.44		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
11Cl-PF3OUdS	ND	5.62		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFDoA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
MeFOSA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFTrDA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFDoS	ND	1.45		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
PFTeDA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1

Sample ID: MW-2

EPA Method 1633

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 12:15

Laboratory Data

Lab Sample: 2406188-02
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.50		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
MeFOSE	ND	15.0		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
EtFOSE	ND	15.0		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	87.6	10 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C5-PFPeA	IS	95.3	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C2-4:2 FTS	IS	97.3	40 - 200		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C3-PFBS	IS	101	40 - 135		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C5-PFHxA	IS	83.0	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C4-PFHpA	IS	89.0	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C3-HFPO-DA	IS	86.5	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C2-6:2 FTS	IS	94.1	40 - 200		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C8-PFOA	IS	93.3	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C3-PFHxS	IS	96.8	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C9-PFNA	IS	95.2	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C2-8:2 FTS	IS	98.1	40 - 300		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C6-PFDA	IS	87.5	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
d3-MeFOSAA	IS	93.3	40 - 170		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C8-PFOS	IS	97.9	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
d5-EtFOSAA	IS	87.0	25 - 135		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C7-PFUnA	IS	87.3	30 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C8-PFOSA	IS	81.0	40 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C2-PFDoA	IS	67.3	10 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
13C2-PFTeDA	IS	75.3	10 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
d7-MeFOSE	IS	34.7	10 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
d3-MeFOSA	IS	32.1	10 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
d9-EtFOSE	IS	32.6	10 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1
d5-EtFOSA	IS	23.8	10 - 130		B24G035	08-Jul-24	0.534 L	16-Jul-24 16:57	1

RL - Reporting limit

Results reported to RL.

Sample ID: Field Blank — **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 12:25

Laboratory Data

Lab Sample: 2406188-03
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	6.56		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFMPA	ND	3.28		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
3:3 FTCA	ND	8.20		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFPeA	ND	3.28		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFMBA	ND	3.28		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFBS	ND	1.46		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
4:2 FTS	ND	6.15		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFHxA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFEESA	ND	2.92		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFPeS	ND	1.54		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
HFPO-DA	ND	6.85		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
NFDHA	ND	3.28		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
5:3 FTCA	ND	41.0		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFHpA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
ADONA	ND	6.48		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFHxS	ND	1.50		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
6:2 FTS	ND	6.22		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFOA	ND	2.05		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFHpS	ND	1.56		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
7:3 FTCA	ND	41.0		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFNA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFOSA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFOS	ND	1.53		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
9Cl-PF3ONS	ND	6.40		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFDA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
8:2 FTS	ND	6.29		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFNS	ND	1.58		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
MeFOSAA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
EtFOSAA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFUnA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFDS	ND	1.58		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
11Cl-PF3OUdS	ND	6.15		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFDoA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
MeFOSA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFTrDA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFDoS	ND	1.59		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
PFTeDA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1

Sample ID: Field Blank

EPA Method 1633

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 12:25

Laboratory Data

Lab Sample: 2406188-03
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.64		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
MeFOSE	ND	16.4		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
EtFOSE	ND	16.4		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	85.7	10 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C5-PFPeA	IS	84.7	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C2-4:2 FTS	IS	94.9	40 - 200		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C3-PFBS	IS	97.0	40 - 135		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C5-PFHxA	IS	77.7	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C4-PFHpA	IS	84.0	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C3-HFPO-DA	IS	76.3	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C2-6:2 FTS	IS	88.6	40 - 200		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C8-PFOA	IS	82.0	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C3-PFHxS	IS	94.6	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C9-PFNA	IS	83.0	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C2-8:2 FTS	IS	87.2	40 - 300		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C6-PFDA	IS	80.2	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
d3-MeFOSAA	IS	83.0	40 - 170		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C8-PFOS	IS	93.0	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
d5-EtFOSAA	IS	72.7	25 - 135		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C7-PFUnA	IS	84.3	30 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C8-PFOSA	IS	53.1	40 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C2-PFDoA	IS	64.8	10 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
13C2-PFTeDA	IS	60.0	10 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
d7-MeFOSE	IS	30.7	10 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
d3-MeFOSA	IS	23.7	10 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
d9-EtFOSE	IS	27.4	10 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1
d5-EtFOSA	IS	20.0	10 - 130		B24G035	08-Jul-24	0.488 L	16-Jul-24 17:11	1

RL - Reporting limit

Results reported to RL.

Sample ID: MW-5 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 12:55

Laboratory Data

Lab Sample: 2406188-04
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	6.10		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFMPA	ND	3.05		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
3:3 FTCA	ND	7.62		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFPeA	ND	3.05		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFMBA	ND	3.05		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFBS	ND	1.35		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
4:2 FTS	ND	5.72		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFHxA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFEESA	ND	2.72		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFPeS	ND	1.43		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
HFPO-DA	ND	6.36		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
NFDHA	ND	3.05		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
5:3 FTCA	ND	38.1		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFHpA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
ADONA	ND	6.02		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFHxS	ND	1.39		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
6:2 FTS	ND	5.78		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFOA	ND	1.91		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFHpS	ND	1.45		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
7:3 FTCA	ND	38.1		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFNA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFOSA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFOS	ND	1.42		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
9Cl-PF3ONS	ND	5.94		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFDA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
8:2 FTS	ND	5.85		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFNS	ND	1.47		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
MeFOSAA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
EtFOSAA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFUnA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFDS	ND	1.47		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
11Cl-PF3OUdS	ND	5.72		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFDoA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
MeFOSA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFTrDA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFDoS	ND	1.48		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
PFTeDA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1

Sample ID: MW-5

EPA Method 1633

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 12:55

Laboratory Data

Lab Sample: 2406188-04
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.52		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
MeFOSE	ND	15.2		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
EtFOSE	ND	15.2		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	36.0	10 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C5-PFPeA	IS	99.5	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C2-4:2 FTS	IS	93.5	40 - 200		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C3-PFBS	IS	98.8	40 - 135		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C5-PFHxA	IS	89.4	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C4-PFHpA	IS	92.0	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C3-HFPO-DA	IS	92.7	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C2-6:2 FTS	IS	90.4	40 - 200		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C8-PFOA	IS	88.5	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C3-PFHxS	IS	94.0	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C9-PFNA	IS	90.1	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C2-8:2 FTS	IS	93.3	40 - 300		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C6-PFDA	IS	88.1	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
d3-MeFOSAA	IS	82.6	40 - 170		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C8-PFOS	IS	95.0	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
d5-EtFOSAA	IS	76.7	25 - 135		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C7-PFUnA	IS	88.9	30 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C8-PFOSA	IS	77.9	40 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C2-PFDoA	IS	75.8	10 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
13C2-PFTeDA	IS	66.1	10 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
d7-MeFOSE	IS	32.6	10 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
d3-MeFOSA	IS	34.4	10 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
d9-EtFOSE	IS	29.9	10 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1
d5-EtFOSA	IS	23.0	10 - 130		B24G035	08-Jul-24	0.525 L	11-Jul-24 09:15	1

RL - Reporting limit

Results reported to RL.

Sample ID: MW-8 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 12:55

Laboratory Data

Lab Sample: 2406188-05
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	6.07		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFMPA	ND	3.04		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
3:3 FTCA	ND	7.59		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFPeA	ND	3.04		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFMBA	ND	3.04		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFBS	ND	1.35		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
4:2 FTS	ND	5.69		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFHxA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFEESA	ND	2.70		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFPeS	ND	1.42		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
HFPO-DA	ND	6.34		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
NFDHA	ND	3.04		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
5:3 FTCA	ND	37.9		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFHpA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
ADONA	ND	5.99		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFHxS	ND	1.38		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
6:2 FTS	ND	5.76		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFOA	ND	1.90		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFHpS	ND	1.44		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
7:3 FTCA	ND	37.9		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFNA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFOSA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFOS	ND	1.41		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
9Cl-PF3ONS	ND	5.92		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFDA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
8:2 FTS	ND	5.82		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFNS	ND	1.46		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
MeFOSAA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
EtFOSAA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFUnA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFDS	ND	1.46		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
11Cl-PF3OUdS	ND	5.69		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFDoA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
MeFOSA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFTrDA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFDoS	ND	1.47		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
PFTeDA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1

Sample ID: MW-8 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 12:55

Laboratory Data

Lab Sample: 2406188-05
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.52		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
MeFOSE	ND	15.2		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
EtFOSE	ND	15.2		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	90.6	10 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C5-PFPeA	IS	103	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C2-4:2 FTS	IS	92.5	40 - 200		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C3-PFBS	IS	108	40 - 135		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C5-PFHxA	IS	95.5	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C4-PFHpA	IS	95.4	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C3-HFPO-DA	IS	94.8	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C2-6:2 FTS	IS	92.9	40 - 200		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C8-PFOA	IS	89.8	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C3-PFHxS	IS	96.3	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C9-PFNA	IS	98.0	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C2-8:2 FTS	IS	89.2	40 - 300		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C6-PFDA	IS	99.0	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
d3-MeFOSAA	IS	84.8	40 - 170		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C8-PFOS	IS	96.1	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
d5-EtFOSAA	IS	83.0	25 - 135		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C7-PFUnA	IS	100	30 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C8-PFOSA	IS	79.7	40 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C2-PFDoA	IS	80.6	10 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
13C2-PFTeDA	IS	70.2	10 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
d7-MeFOSE	IS	31.9	10 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
d3-MeFOSA	IS	32.8	10 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
d9-EtFOSE	IS	29.5	10 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1
d5-EtFOSA	IS	22.2	10 - 130		B24G035	08-Jul-24	0.527 L	11-Jul-24 09:29	1

RL - Reporting limit

Results reported to RL.

Sample ID: MW-7 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 13:30

Laboratory Data

Lab Sample: 2406188-06
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	6.34		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFMPA	ND	3.17		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
3:3 FTCA	ND	7.92		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFPeA	ND	3.17		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFMBA	ND	3.17		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFBS	ND	1.41		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
4:2 FTS	ND	5.94		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFHxA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFEESA	ND	2.82		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFPeS	ND	1.49		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
HFPO-DA	ND	6.61		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
NFDHA	ND	3.17		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
5:3 FTCA	ND	39.6		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFHpA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
ADONA	ND	6.26		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFHxS	ND	1.45		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
6:2 FTS	ND	6.01		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFOA	ND	1.98		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFHpS	ND	1.51		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
7:3 FTCA	ND	39.6		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFNA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFOSA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFOS	ND	1.48		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
9Cl-PF3ONS	ND	6.18		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFDA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
8:2 FTS	ND	6.08		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFNS	ND	1.52		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
MeFOSAA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
EtFOSAA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFUnA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFDS	ND	1.52		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
11Cl-PF3OUdS	ND	5.94		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFDoA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
MeFOSA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFTrDA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFDoS	ND	1.53		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
PFTeDA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1

Sample ID: MW-7 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 20-Jun-24 13:30

Laboratory Data

Lab Sample: 2406188-06
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.58		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
MeFOSE	ND	15.8		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
EtFOSE	ND	15.8		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	31.2	10 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C5-PFPeA	IS	87.6	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C2-4:2 FTS	IS	79.2	40 - 200		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C3-PFBS	IS	89.6	40 - 135		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C5-PFHxA	IS	82.1	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C4-PFHpA	IS	83.5	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C3-HFPO-DA	IS	80.6	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C2-6:2 FTS	IS	78.6	40 - 200		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C8-PFOA	IS	81.6	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C3-PFHxS	IS	83.7	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C9-PFNA	IS	80.5	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C2-8:2 FTS	IS	76.3	40 - 300		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C6-PFDA	IS	77.5	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
d3-MeFOSAA	IS	80.4	40 - 170		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C8-PFOS	IS	82.7	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
d5-EtFOSAA	IS	70.3	25 - 135		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C7-PFUnA	IS	83.0	30 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C8-PFOSA	IS	71.4	40 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C2-PFDoA	IS	63.4	10 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
13C2-PFTeDA	IS	58.5	10 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
d7-MeFOSE	IS	29.2	10 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
d3-MeFOSA	IS	30.7	10 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
d9-EtFOSE	IS	26.8	10 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1
d5-EtFOSA	IS	21.5	10 - 130		B24G035	08-Jul-24	0.505 L	11-Jul-24 09:42	1

RL - Reporting limit

Results reported to RL.

Sample ID: MW-6 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 21-Jun-24 11:00

Laboratory Data

Lab Sample: 2406188-07
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	6.14		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFMPA	ND	3.07		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
3:3 FTCA	ND	7.67		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFPeA	ND	3.07		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFMBA	ND	3.07		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFBS	ND	1.36		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
4:2 FTS	ND	5.76		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFHxA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFEESA	ND	2.73		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFPeS	ND	1.44		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
HFPO-DA	ND	6.41		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
NFDHA	ND	3.07		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
5:3 FTCA	ND	38.4		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFHpA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
ADONA	ND	6.06		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFHxS	ND	1.40		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
6:2 FTS	ND	5.82		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFOA	ND	1.92		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFHpS	ND	1.46		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
7:3 FTCA	ND	38.4		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFNA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFOSA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFOS	ND	1.43		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
9Cl-PF3ONS	ND	5.99		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFDA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
8:2 FTS	ND	5.89		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFNS	ND	1.48		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
MeFOSAA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
EtFOSAA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFUnA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFDS	ND	1.48		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
11Cl-PF3OUdS	ND	5.76		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFDoA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
MeFOSA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFTrDA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFDoS	ND	1.49		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
PFTeDA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1

Sample ID: MW-6

EPA Method 1633

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 21-Jun-24 11:00

Laboratory Data

Lab Sample: 2406188-07
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.53		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
MeFOSE	ND	15.3		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
EtFOSE	ND	15.3		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	87.4	10 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C5-PFPeA	IS	99.9	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C2-4:2 FTS	IS	88.5	40 - 200		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C3-PFBS	IS	95.5	40 - 135		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C5-PFHxA	IS	90.8	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C4-PFHpA	IS	95.1	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C3-HFPO-DA	IS	92.7	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C2-6:2 FTS	IS	88.1	40 - 200		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C8-PFOA	IS	89.6	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C3-PFHxS	IS	94.9	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C9-PFNA	IS	85.9	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C2-8:2 FTS	IS	84.0	40 - 300		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C6-PFDA	IS	92.8	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
d3-MeFOSAA	IS	82.2	40 - 170		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C8-PFOS	IS	94.5	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
d5-EtFOSAA	IS	78.6	25 - 135		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C7-PFUnA	IS	95.5	30 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C8-PFOSA	IS	75.1	40 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C2-PFDoA	IS	80.6	10 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
13C2-PFTeDA	IS	73.4	10 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
d7-MeFOSE	IS	54.6	10 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
d3-MeFOSA	IS	34.9	10 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
d9-EtFOSE	IS	53.8	10 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1
d5-EtFOSA	IS	24.7	10 - 130		B24G035	08-Jul-24	0.521 L	11-Jul-24 09:56	1

RL - Reporting limit

Results reported to RL.

Sample ID: MW-1 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 21-Jun-24 12:20

Laboratory Data

Lab Sample: 2406188-08
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	10.6	6.31		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFMPA	ND	3.15		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
3:3 FTCA	ND	7.88		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFPeA	21.7	3.15		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFMBA	ND	3.15		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFBS	14.2	1.40		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
4:2 FTS	ND	5.91		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFHxA	21.1	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFEESA	ND	2.81		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFPeS	2.24	1.48		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
HFPO-DA	ND	6.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
NFDHA	ND	3.15		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
5:3 FTCA	ND	39.4		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFHpA	4.13	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
ADONA	ND	6.23		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFHxS	7.16	1.44		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
6:2 FTS	ND	5.98		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFOA	7.03	1.97		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFHpS	ND	1.50		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
7:3 FTCA	ND	39.4		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFNA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFOSA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFOS	ND	1.47		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
9Cl-PF3ONS	ND	6.15		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFDA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
8:2 FTS	ND	6.05		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFNS	ND	1.52		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
MeFOSAA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
EtFOSAA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFUnA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFDS	ND	1.52		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
11Cl-PF3OUdS	ND	5.91		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFDoA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
MeFOSA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFTrDA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFDoS	ND	1.53		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
PFTeDA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1

Sample ID: MW-1

EPA Method 1633

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 21-Jun-24 12:20

Laboratory Data

Lab Sample: 2406188-08
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.58		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
MeFOSE	ND	15.8		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
EtFOSE	ND	15.8		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	71.2	10 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C5-PFPeA	IS	95.5	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C2-4:2 FTS	IS	84.9	40 - 200		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C3-PFBS	IS	85.9	40 - 135		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C5-PFHxA	IS	83.6	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C4-PFHpA	IS	87.5	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C3-HFPO-DA	IS	84.3	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C2-6:2 FTS	IS	80.7	40 - 200		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C8-PFOA	IS	83.8	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C3-PFHxS	IS	86.4	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C9-PFNA	IS	88.9	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C2-8:2 FTS	IS	78.9	40 - 300		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C6-PFDA	IS	88.3	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
d3-MeFOSAA	IS	76.0	40 - 170		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C8-PFOS	IS	82.5	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
d5-EtFOSAA	IS	72.5	25 - 135		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C7-PFUnA	IS	95.5	30 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C8-PFOSA	IS	65.5	40 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C2-PFDoA	IS	76.7	10 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
13C2-PFTeDA	IS	66.5	10 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
d7-MeFOSE	IS	39.1	10 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
d3-MeFOSA	IS	24.6	10 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
d9-EtFOSE	IS	36.9	10 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1
d5-EtFOSA	IS	19.0	10 - 130		B24G035	08-Jul-24	0.508 L	11-Jul-24 10:09	1

RL - Reporting limit

Results reported to RL.

Sample ID: Field Blank — **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 21-Jun-24 11:10

Laboratory Data

Lab Sample: 2406188-09
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	6.32		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFMPA	ND	3.16		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
3:3 FTCA	ND	7.90		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFPeA	ND	3.16		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFMBA	ND	3.16		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFBS	ND	1.40		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
4:2 FTS	ND	5.92		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFHxA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFEESA	ND	2.81		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFPeS	ND	1.48		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
HFPO-DA	ND	6.60		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
NFDHA	ND	3.16		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
5:3 FTCA	ND	39.5		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFHpA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
ADONA	ND	6.24		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFHxS	ND	1.44		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
6:2 FTS	ND	5.99		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFOA	ND	1.97		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFHpS	ND	1.50		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
7:3 FTCA	ND	39.5		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFNA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFOSA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFOS	ND	1.47		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
9Cl-PF3ONS	ND	6.16		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFDA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
8:2 FTS	ND	6.06		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFNS	ND	1.52		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
MeFOSAA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
EtFOSAA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFUnA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFDS	ND	1.52		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
11Cl-PF3OUdS	ND	5.92		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFDoA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
MeFOSA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFTrDA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFDoS	ND	1.53		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
PFTeDA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1

Sample ID: Field Blank

EPA Method 1633

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 21-Jun-24 11:10

Laboratory Data

Lab Sample: 2406188-09
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.58		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
MeFOSE	ND	15.8		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
EtFOSE	ND	15.8		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	89.8	10 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C5-PFPeA	IS	91.5	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C2-4:2 FTS	IS	91.0	40 - 200		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C3-PFBS	IS	95.2	40 - 135		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C5-PFHxA	IS	84.9	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C4-PFHpA	IS	87.4	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C3-HFPO-DA	IS	82.5	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C2-6:2 FTS	IS	85.6	40 - 200		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C8-PFOA	IS	86.3	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C3-PFHxS	IS	89.9	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C9-PFNA	IS	83.6	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C2-8:2 FTS	IS	84.9	40 - 300		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C6-PFDA	IS	86.6	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
d3-MeFOSAA	IS	84.8	40 - 170		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C8-PFOS	IS	93.8	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
d5-EtFOSAA	IS	78.6	25 - 135		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C7-PFUnA	IS	94.2	30 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C8-PFOSA	IS	56.7	40 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C2-PFDoA	IS	74.9	10 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
13C2-PFTeDA	IS	66.1	10 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
d7-MeFOSE	IS	31.9	10 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
d3-MeFOSA	IS	26.7	10 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
d9-EtFOSE	IS	28.5	10 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1
d5-EtFOSA	IS	20.6	10 - 130		B24G035	08-Jul-24	0.506 L	11-Jul-24 10:23	1

RL - Reporting limit

Results reported to RL.

Sample ID: MW-4 **EPA Method 1633**

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 21-Jun-24 13:00

Laboratory Data

Lab Sample: 2406188-10
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	ND	6.12		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFMPA	ND	3.06		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
3:3 FTCA	ND	7.65		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFPeA	ND	3.06		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFMBA	ND	3.06		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFBS	2.67	1.36		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
4:2 FTS	ND	5.74		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFHxA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFEESA	ND	2.72		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFPeS	ND	1.43		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
HFPO-DA	ND	6.39		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
NFDHA	ND	3.06		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
5:3 FTCA	ND	38.2		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFHpA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
ADONA	ND	6.04		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFHxS	ND	1.40		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
6:2 FTS	ND	5.80		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFOA	ND	1.91		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFHpS	ND	1.45		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
7:3 FTCA	ND	38.2		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFNA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFOSA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFOS	ND	1.42		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
9Cl-PF3ONS	ND	5.97		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFDA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
8:2 FTS	ND	5.87		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFNS	ND	1.47		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
MeFOSAA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
EtFOSAA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFUnA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFDS	ND	1.47		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
11Cl-PF3OUdS	ND	5.74		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFDoA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
MeFOSA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFTrDA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFDoS	ND	1.48		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
PFTeDA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1

Sample ID: MW-4

EPA Method 1633

Client Data

Name: Hazen & Sawyer
Project: DB24.1212.00
Matrix: Aqueous
Date Collected: 21-Jun-24 13:00

Laboratory Data

Lab Sample: 2406188-10
Date Received: 25-Jun-24 10:06
Column: BEH C18

Analyte	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
EtFOSA	ND	1.53		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
MeFOSE	ND	15.3		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
EtFOSE	ND	15.3		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFBA	IS	96.2	10 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C5-PFPeA	IS	102	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C2-4:2 FTS	IS	89.4	40 - 200		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C3-PFBS	IS	100	40 - 135		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C5-PFHxA	IS	91.2	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C4-PFHpA	IS	93.7	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C3-HFPO-DA	IS	90.9	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C2-6:2 FTS	IS	84.4	40 - 200		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C8-PFOA	IS	93.6	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C3-PFHxS	IS	91.0	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C9-PFNA	IS	94.2	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C2-8:2 FTS	IS	90.5	40 - 300		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C6-PFDA	IS	92.4	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
d3-MeFOSAA	IS	82.4	40 - 170		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C8-PFOS	IS	96.1	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
d5-EtFOSAA	IS	80.7	25 - 135		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C7-PFUnA	IS	94.6	30 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C8-PFOSA	IS	70.6	40 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C2-PFDoA	IS	75.7	10 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
13C2-PFTeDA	IS	66.7	10 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
d7-MeFOSE	IS	33.1	10 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
d3-MeFOSA	IS	25.7	10 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
d9-EtFOSE	IS	32.4	10 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1
d5-EtFOSA	IS	18.4	10 - 130		B24G035	08-Jul-24	0.523 L	11-Jul-24 10:36	1

RL - Reporting limit

Results reported to RL.

DATA QUALIFIERS & ABBREVIATIONS
For EPA 1633

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
I	Ion transition ratio is outside of the acceptance criteria.
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	Recovery and/or RPD was outside laboratory acceptance limits
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Enthalpy Analytical - EDH Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
Nevada Division of Environmental Protection	CA00413
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters can be found at Enthalpy.com/Resources/Accreditations.

ENTHALPY ANALYTICAL

CHAIN OF CUSTODY

PFAS Methods

For Laboratory Use Only
Work Order #: 2406188 Temp: 1.4 °C
Storage ID: R-13, WR-1, WF-2 Storage Secured ☑ Yes ☐ No

Project ID: DB24.1212.00 PO#: Sampler: J. Fisher (name)

TAT (check one): Standard: ☐ 21 days Rush (surcharge may apply) ☐ 14 days ☐ 7 days Other:

Invoice to: Name: Amy Ewing Company: Hagen & Sawyer Address: City: State: Phone #:

Relinquished by (printed name and signature): Jerome Fisher Date: 6/24/24 Time: 1500
Received by (printed name and signature): Isela Bustillos Date: 06/25/2024 Time: 1006

Relinquished by (printed name and signature): Date: Time:
Received by (printed name and signature): Date: Time:

SHIP TO: Enthalpy Analytical - EDH
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520

ATTN: Christopher Whitehead

Method of Shipment: UPS

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/ Sample Description	Container(s) Quantity	Type	Matrix	PFAS by Isotope Dilution (Drinking Water)	EPA 1633-Draft	DoD QSM Table B-15	Other:	EPA 533	EPA 537.1	List of 29 (537.1 + 533)
MW-3	6/20/24	1130		3	P	AQ	X						
MW-2	"	1215					X						
Field Blank		1225					X						
MW-5		1255					X						
MW-8		1255					X						
MW-7		1330					X						
MW-6	6/21/24	1100					X						
MW-1		1220					X						
Field Blank		1110					X						
MW-4		1300					X						

Requirements:
☐ State-specific (list state):
☒ DoD QSM Compliant
☐ PFAS List Below (or attach compound list):

Other Instructions/ Comments:

SEND DOCUMENTATION AND RESULTS TO:

Name: Patricia Feltman
Company: DBSA
Address: 6020 Academy NE Suite 100
City: Albuquerque State: NM Zip: 87109
Phone: 505-822-9400
Email: pfeltman@geo-logic.com

Container Types: P= HDPE, PJ= HDPE Jar, PY= Polypropylene, O = Other:

Bottle Preservation Type: TZ = Trizma:, AA = Amm. Acetate:

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, SD = Sediment, T=Tissue, SL = Sludge, SO = Soil, WW = Wastewater, O = Other:

ID: LR-COC Rev. No. 2 Rev. Date: 1/2/2023 **Page:** 1 of 1

Sample Log-In Checklist

ENTHALPY ANALYTICAL

Page # 1 of 1

Work Order #: 2406188 TAT STD

Samples Arrival:	**Date/Time** 06/25/2024 1006		**Initials:** KBB		**Location:** WR-2 **Shelf/Rack:** N/A		
Delivered By:	FedEx	(UPS)	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Techni Ice	Dry Ice	None
Temp °C: 1.4 (uncorrected) / **Temp °C:** 1.4 (corrected)			**Probe used:** Y / (N)		**Thermometer ID:** IR-4		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Airbill — Trk # 1Z A8X 043 01 7952 1064	✓		
Shipping Documentation Present?	✓		
Shipping Container: (Enthalpy) / Client / (Retain) / Return / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 06/26/24 1316	**Initials:** WWS	**Location:** R-13, WR-1, WF-2 **Shelf/Rack:** B-1, I-4, B-2
COC Anomaly/Sample Acceptance Form completed?	✓		

Comments:

CoC/Label Reconciliation Report WO# 2406188

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2406188-01	A MW-3		20-Jun-24 11:30	HDPE Bottle, 500 mL	Aqueous	
2406188-01	B MW-3		20-Jun-24 11:30	HDPE Bottle, 500 mL	Aqueous	
2406188-01	C MW-3		20-Jun-24 11:30	HDPE Bottle, 125 mL	Aqueous	
2406188-02	A MW-2		20-Jun-24 12:15	HDPE Bottle, 500 mL	Aqueous	
2406188-02	B MW-2		20-Jun-24 12:15	HDPE Bottle, 500 mL	Aqueous	
2406188-02	C MW-2		20-Jun-24 12:15	HDPE Bottle, 125 mL	Aqueous	
2406188-03	A Field Blank		20-Jun-24 12:25	HDPE Bottle, 500 mL	Aqueous	
2406188-03	B Field Blank		20-Jun-24 12:25	HDPE Bottle, 500 mL	Aqueous	
2406188-03	C Field Blank		20-Jun-24 12:25	HDPE Bottle, 125 mL	Aqueous	
2406188-04	A MW-5		20-Jun-24 12:55	HDPE Bottle, 500 mL	Aqueous	
2406188-04	B MW-5		20-Jun-24 12:55	HDPE Bottle, 500 mL	Aqueous	
2406188-04	C MW-5		20-Jun-24 12:55	HDPE Bottle, 125 mL	Aqueous	
2406188-05	A MW-8		20-Jun-24 12:55	HDPE Bottle, 500 mL	Aqueous	
2406188-05	B MW-8		20-Jun-24 12:55	HDPE Bottle, 500 mL	Aqueous	
2406188-05	C MW-8		20-Jun-24 12:55	HDPE Bottle, 125 mL	Aqueous	
2406188-06	A MW-7		20-Jun-24 13:30	HDPE Bottle, 500 mL	Aqueous	
2406188-06	B MW-7		20-Jun-24 13:30	HDPE Bottle, 500 mL	Aqueous	
2406188-06	C MW-7		20-Jun-24 13:30	HDPE Bottle, 125 mL	Aqueous	
2406188-07	A MW-6		21-Jun-24 11:00	HDPE Bottle, 500 mL	Aqueous	
2406188-07	B MW-6		21-Jun-24 11:00	HDPE Bottle, 500 mL	Aqueous	
2406188-07	C MW-6		21-Jun-24 11:00	HDPE Bottle, 125 mL	Aqueous	
2406188-08	A MW-1		21-Jun-24 12:20	HDPE Bottle, 500 mL	Aqueous	
2406188-08	B MW-1		21-Jun-24 12:20	HDPE Bottle, 500 mL	Aqueous	
2406188-08	C MW-1		21-Jun-24 12:20	HDPE Bottle, 125 mL	Aqueous	
2406188-09	A Field Blank		21-Jun-24 11:10	HDPE Bottle, 500 mL	Aqueous	
2406188-09	B Field Blank		21-Jun-24 11:10	HDPE Bottle, 500 mL	Aqueous	
2406188-09	C Field Blank		21-Jun-24 11:10	HDPE Bottle, 125 mL	Aqueous	
2406188-10	A MW-4		21-Jun-24 13:00	HDPE Bottle, 500 mL	Aqueous	

WLS 06/26/24

2406188-10 B MW-4	☑	21-Jun-24 13:00	☑	HDPE Bottle, 500 mL	Aqueous
2406188-10 C MW-4	☑	21-Jun-24 13:00	☑	HDPE Bottle, 125 mL	Aqueous

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		

Comments: ② sample label: 6/30/24

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None (all) Other

Verifed by/Date: YWS 06/26/24
XAO 06/26/24

ENTHALPY ANALYTICAL

ANOMALY FORM

Work Order # 2406188

Initial/Date		The following checked issues were noted during sample receipt and login:
_____	☐	**1. The samples were received out of temperature at (WI-PHT):** _____ Was Ice present: Yes No Melted Blue Ice
_____	☐	2. The Chain-of-Custody (CoC) was not relinquished properly.
_____	☐	3. The CoC did not include collection time(s). 00:00 will be used unless notified otherwise.
_____	☐	4. The sample(s) did not include a sample collection time. All or Sample Name: _____
_____	☐	5. A sample ID discrepancy was found. See the Reconciliation report. The CoC Sample ID will be used unless notified otherwise.
WDS 06/26/24	☑	6. A sample date and/or time discrepancy was found. See the Reconciliation report. The CoC Sample date/time will be used unless notified otherwise.
_____	☐	**7. The CoC did not include a sample matrix. The following sample matrix will be used:** _____
_____	☐	**8. Insufficent volume received for analysis. All or Sample Name:** _____
_____	☐	9. The backup bottle was received broken. Sample Name: _____
_____	☐	**10. CoC not received, illegible or destroyed.**
_____	☐	**11. The sample(s) were received out of holding time. All or Sample Name:** _____
_____	☐	**12. The CoC did not include an analysis. All or Sample Name:** _____
_____	☐	**13. Sample(s) received without collection date. All or Sample Name:** _____
_____	☐	**14. Sample(s) not received. All or Sample Name:** _____
_____	☐	**15. Sample(s) received broken. All or Sample Name:** _____
_____	☐	**16. An incorrect container-type was used. All or Sample Name:** _____
_____	☐	17. The Field Reagent Blank (FRB) preservative was from a different lot than the field samples. Will proceed with analysis and narrate unless notified otherwise.
_____	☐	18. Other:

Bolded items require sign-off

Client Contacted: _____

Date of Contact: _____

Lab Project Manager: _____

Resolution: