

From: Beggs, Tauren R - DNR
Sent: Friday, January 14, 2022 12:57 PM
To: Haag, Christine T - DNR
Cc: Nobile, Trevor W - DNR; Chronert, Roxanne N - DNR (Roxanne.Chronert@wisconsin.gov); McKnight, Kevin - DNR
Subject: FW: Update for Sampling for Mirro Co Plant 2 (Former)
Attachments: DRAFT_PW_PFAS Results.pdf; Summary_2112147.pdf

Hi Christine,

Attached are the results (lab results and draft table put together by AECOM). See Lanette's comment below. There was some issue with the lab providing a corrected data package (had an incorrect name for the project on the lab report), but she thinks the data is valid and useable.

Regards,

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Tauren R. Beggs

Phone: (920) 510-3472

Tauren.Beggs@wisconsin.gov (preferred contact method during work at home)

From: Altenbach, Lanette <Lanette.Altенbach@aecom.com>
Sent: Friday, January 14, 2022 12:02 PM
To: Beggs, Tauren R - DNR <Tauren.Beggs@wisconsin.gov>
Subject: RE: Update for Sampling for Mirro Co Plant 2 (Former)

Hi Tauren,

I have attached a draft table of results and included a copy of the laboratory analytical report. I am still waiting on the lab for a corrected lab data package so that we can validate the data. In the meantime, I believe the data is valid and useable.

Lanette,
414-944-6186

Table 1
Summary of PFAS Analytes in Potable wells
Former Mirro Plant #2
Manitowoc, Wisconsin

DRAFT

					Location: Sample Date:	1750 Mirro Dr 12/15/2021	2519 Woodland Dr 12/15/2021	2722 Woodland Dr 12/16/2021	3104 Woodland Dr 12/16/2021
Abbr	Cas Number	Units	ES (proposed)	PAL (proposed)					
PFBA	375-22-4	ng/L	10,000	2,000	< 0.991	< 1.02	< 1.02	< 1.03	
PFPeA	2706-90-3	ng/L	--	--	< 0.741	< 0.76	< 0.76	< 0.77	
PFBS	375-73-5	ng/L	450,000	90,000	< 0.888	< 0.911	< 0.911	< 0.923	
4:2 FTS	757124-72-4	ng/L	--	--	< 0.932	< 0.956	< 0.956	< 0.969	
PFHxA	307-24-4	ng/L	150,000	30,000	< 0.8	< 0.82	< 0.82	< 0.831	
PFPeS	2706-91-4	ng/L	--	--	< 0.805	< 0.825	< 0.825	< 0.836	
HFPO-DA	13252-13-6	ng/L	300	30	< 1.54	< 1.58	< 1.57	< 1.6	
PFHpA	375-85-9	ng/L	--	--	< 0.918	< 0.941	0.942 ^J	< 0.953	
DONA	919005-14-4	ng/L	3,000	600	< 0.628	< 0.644	< 0.644	< 0.653	
PFHxS	355-46-4	ng/L	40	4	< 1.01	< 1.04	< 1.04	< 1.05	
6:2 FTS	27619-97-2	ng/L	--	--	< 1.1	< 1.13	< 1.13	< 1.15	
PFOA	335-67-1	ng/L	20 ^c	2 ^c	< 0.937	< 0.961	8.98	< 0.974	
PFHpS	375-92-8	ng/L	--	--	< 0.584	< 0.599	< 0.599	< 0.607	
PFNA	375-95-1	ng/L	30	3	< 0.741	< 0.76	< 0.76	< 0.77	
PFOSA	754-91-6	ng/L	20 ^c	2 ^c	9.08	21.1	106	11.5	
PFOS	1763-23-1	ng/L	20 ^c	2 ^c	< 1.11	< 1.14	< 1.14	< 1.15	
F-53B Major	756426-58-1	ng/L	--	--	< 1.05	< 1.07	< 1.07	< 1.09	
PFDA	335-76-2	ng/L	300	60	< 0.927	< 0.951	< 0.951	< 0.964	
8:2 FTS	39108-34-4	ng/L	--	--	< 1.11	< 1.14	< 1.14	< 1.16	
PFNS	68259-12-1	ng/L	--	--	< 1.13	< 1.16	< 1.16	< 1.18	
MeFOSAA	2355-31-9	ng/L	--	--	< 0.932	< 0.956	< 0.956	< 0.969	
EtFOSAA	2991-50-6	ng/L	20 ^c	2 ^c	< 1.02	< 1.05	< 1.05	< 1.06	
PFUnA	2058-94-8	ng/L	3,000	600	< 0.741	< 0.76	< 0.76	< 0.77	
PFDS	335-77-3	ng/L	--	--	< 0.746	< 0.765	< 0.765	< 0.775	
F-53B Minor	763051-92-9	ng/L	--	--	< 0.972	< 0.996	< 0.996	< 1.01	
PFDoA	307-55-1	ng/L	500	100	< 0.957	< 0.981	< 0.981	< 0.994	
NMeFOSA	31506-32-8	ng/L	--	--	< 2.2	< 2.25	< 2.25	< 2.28	
PFTTrDA	72629-94-8	ng/L	--	--	< 0.643	< 0.659	< 0.659	< 0.668	
PFDoS	79780-39-5	ng/L	--	--	< 1.39	< 1.42	< 1.42	< 1.44	
PFTeDA	376-06-7	ng/L	10,000	2,000	< 0.8	< 0.82	< 0.82	< 0.831	
NEtFOSA	4151-50-2	ng/L	20 ^c	2 ^c	< 2.28	< 2.34	< 2.34	< 2.37	
NEtFOSE	1691-99-2	ng/L	20 ^c	2 ^c	< 1.54	< 1.58	< 1.58	< 1.6	
NMeFOSE	24448-09-7	ng/L	--	--	< 1.96	< 2.01	< 2.01	< 2.04	
*Combined Six	N/A	ng/L	20 ^c	2 ^c	9.08	21.10	115.92	11.50	

Note:
^cDHS recommends a combined (c) standard for NEtFOSE, NEtFOSA, NEtFOSAA, FOSA, PFOS and PFOA.
ng/L - nanograms per liter
J - Estimated value (+/- indicates bias)
UJ - Estimated limit of detection (LOD)
Non-detects
Underlined & italic indicates a PAL exceedance, proposed.
Bold indicates an ES exceedance, proposed.
-- No NR 140 ES or PAL established.
NA = Not analyzed

January 12, 2022

Vista Work Order No. 2112147

Ms. Lanette Altenbach
AECOM
1555 N. River Center Drive
Milwaukee, WI 53212

Dear Ms. Altenbach,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on December 17, 2021 under your Project Name '60673908'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at jfox@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Jamie Fox
Laboratory Director



Vista Analytical Laboratory 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 Vista.

Vista Work Order No. 2112147

Case Narrative

Sample Condition on Receipt:

Four aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the recommended temperature requirements.

Analytical Notes:

PFAS Isotope Dilution Method

Sample "2519 Woodland Dr" contained particulate and was centrifuged prior to extraction.

The samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA 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 acceptance criteria.

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. The concentration of EtFOSE was detected in the Method Blank over the Reporting Limit. This analyte was not detected in the samples. The LCS/LCSD recoveries were within the method acceptance criteria. The RPD of MeFOSA was greater than 30% in the LCS/LCSD. This analyte was not detected in the samples. The recoveries and RPDs of all other analytes were within the acceptance criteria.

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

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Sample Inventory Report



Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2112147-01	1750 Mirro Dr	15-Dec-21 17:15	17-Dec-21 10:20	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2112147-02	2722 Woodland Dr	16-Dec-21 08:15	17-Dec-21 10:20	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2112147-03	3104 Woodland Dr	16-Dec-21 08:45	17-Dec-21 10:20	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2112147-04	2519 Woodland Dr	15-Dec-21 17:45	17-Dec-21 10:20	HDPE Bottle, 250 mL HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B1L0185-BLK1	Column:	BEH C18
Project:	60673908						

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.01	1.01	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFPeA	2706-90-3	<0.755	0.755	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFBS	375-73-5	<0.905	0.905	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
4:2 FTS	757124-72-4	<0.950	0.950	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFHxA	307-24-4	<0.815	0.815	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFPeS	2706-91-4	<0.820	0.820	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
HFPO-DA	13252-13-6	<1.57	1.57	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFHpA	375-85-9	<0.935	0.935	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
ADONA	919005-14-4	<0.640	0.640	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFHxS	355-46-4	<1.03	1.03	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
6:2 FTS	27619-97-2	<1.13	1.13	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFOA	335-67-1	<0.955	0.955	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFHpS	375-92-8	<0.595	0.595	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFNA	375-95-1	<0.755	0.755	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFOSA	754-91-6	<1.09	1.09	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFOS	1763-23-1	<1.13	1.13	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
9Cl-PF3ONS	756426-58-1	<1.07	1.07	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFDA	335-76-2	<0.945	0.945	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
8:2 FTS	39108-34-4	<1.14	1.14	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFNS	68259-12-1	<1.16	1.16	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
MeFOSAA	2355-31-9	<0.950	0.950	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
EtFOSAA	2991-50-6	<1.04	1.04	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFUnA	2058-94-8	<0.755	0.755	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFDS	335-77-3	<0.760	0.760	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
11Cl-PF3OUdS	763051-92-9	<0.990	0.990	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFDoA	307-55-1	<0.975	0.975	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
MeFOSA	31506-32-8	<2.24	2.24	2.50		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFTTrDA	72629-94-8	<0.655	0.655	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFDoS	79780-39-5	<1.42	1.42	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
PFTeDA	376-06-7	<0.815	0.815	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
EtFOSA	4151-50-2	<2.33	2.33	2.50		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
EtFOSE	1691-99-2	2.18	1.57	2.00		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
MeFOSE	24448-09-7	<2.00	2.00	2.50		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	88.1	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C3-PFPeA	IS	94.9	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C3-PFBS	IS	96.2	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C3-HFPO-DA	IS	107	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1

Sample ID: Method Blank
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B1L0185-BLK1	Column:	BEH C18
Project:	60673908						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	101	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C2-PFHxA	IS	94.2	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C4-PFHpA	IS	92.7	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C3-PFHxS	IS	95.0	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C2-6:2 FTS	IS	96.1	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C5-PFNA	IS	106	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C8-PFOA	IS	44.5	10 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C2-PFOA	IS	101	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C8-PFOS	IS	96.5	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C2-PFDA	IS	102	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C2-8:2 FTS	IS	97.8	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
d3-MeFOSAA	IS	102	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C2-PFUnA	IS	92.4	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
d5-EtFOSAA	IS	76.6	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C2-PFDoA	IS	81.5	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
d3-MeFOSA	IS	16.8	10 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
13C2-PFTeDA	IS	75.0	25 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
d5-EtFOSA	IS	16.3	10 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
d7-MeFOSE	IS	23.4	10 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1
d9-EtFOSE	IS	26.4	10 - 150		B1L0185	30-Dec-21	0.250 L	31-Dec-21 16:08	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name: AECOM	Lab Sample: BIL0185-BS1/BIL0185-BSD1	Date Extracted: 30-Dec-21
Project: 60673908	QC Batch: BIL0185	Column: BEH C18
Matrix: Aqueous	Samp Size: 0.250/0.250 L	

Analyte	CAS Number	LCS (ng/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBA	375-22-4	4.38	4.00	110		4.57	4.00	114	4.26		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFPeA	2706-90-3	3.98	4.00	99.4		4.37	4.00	109	9.40		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFBS	375-73-5	4.19	4.00	105		4.24	4.00	106	1.27		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
4:2 FTS	757124-72-4	3.40	4.00	85.0		4.28	4.00	107	22.9		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFHxA	307-24-4	4.23	4.00	106		4.09	4.00	102	3.47		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFPeS	2706-91-4	3.78	4.00	94.4		4.68	4.00	117	21.4		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
HFPO-DA	13252-13-6	3.82	4.00	95.6		4.92	4.00	123	25.0		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFHpA	375-85-9	3.91	4.00	97.7		4.15	4.00	104	6.01		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
ADONA	919005-14-4	3.83	4.00	95.8		4.18	4.00	105	8.70		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFHxS	355-46-4	3.93	4.00	98.2		4.41	4.00	110	11.6		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
6:2 FTS	27619-97-2	4.37	4.00	109		4.40	4.00	110	0.726		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFOA	335-67-1	3.92	4.00	98.1		4.33	4.00	108	9.93		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFHpS	375-92-8	3.88	4.00	96.9		4.07	4.00	102	4.84		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFNA	375-95-1	3.84	4.00	96.0		3.86	4.00	96.6	0.650		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFOSA	754-91-6	3.96	4.00	99.1		3.69	4.00	92.3	7.09		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFOS	1763-23-1	3.26	4.00	81.4		3.71	4.00	92.7	12.9		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
9Cl-PF3ONS	756426-58-1	4.30	4.00	108		4.27	4.00	107	0.778		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFDA	335-76-2	3.76	4.00	94.0		4.36	4.00	109	14.8		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
8:2 FTS	39108-34-4	4.05	4.00	101		4.04	4.00	101	0.257		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFNS	68259-12-1	3.91	4.00	97.9		3.75	4.00	93.7	4.34		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
MeFOSAA	2355-31-9	4.30	4.00	107		4.03	4.00	101	6.35		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
EtFOSAA	2991-50-6	4.10	4.00	102		3.97	4.00	99.2	3.23		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFUnA	2058-94-8	4.30	4.00	108		4.95	4.00	124	13.9		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFDS	335-77-3	3.68	4.00	92.0		3.36	4.00	83.9	9.24		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
11Cl-PF3OUdS	763051-92-9	4.52	4.00	113		3.96	4.00	98.9	13.3		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFDoA	307-55-1	4.07	4.00	102		4.03	4.00	101	1.10		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
MeFOSA	31506-32-8	2.93	4.00	73.2	Q	4.29	4.00	107	37.7	H	50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFTTrDA	72629-94-8	3.93	4.00	98.3	Q	3.08	4.00	77.0	24.2		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFDoS	79780-39-5	4.48	4.00	112		3.65	4.00	91.2	20.4		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
PFTeDA	376-06-7	4.24	4.00	106		4.37	4.00	109	2.99		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
EtFOSA	4151-50-2	4.68	4.00	117		3.56	4.00	88.9	27.3		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
EtFOSE	1691-99-2	4.20	4.00	105	B	3.39	4.00	84.9	21.2	B	50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1
MeFOSE	24448-09-7	5.17	4.00	129		4.86	4.00	121	6.28		50-150	30	31-Dec-21 16:18	1	31-Dec-21 16:29	1

Sample ID: LCSD	PFAS Isotope Dilution Method
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Name: AECOM	Lab Sample: B1L0185-BS1/B1L0185-BSD1	Date Extracted: 30-Dec-21	
Project: 60673908	QC Batch: B1L0185	Column: BEH C18	
Matrix: Aqueous	Samp Size: 0.250/0.250 L		

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBA	IS	86.8		80.3		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C3-PFPeA	IS	94.4		86.5		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C3-PFBS	IS	93.9		83.1		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C3-HFPO-DA	IS	98.5		78.7		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C2-4:2 FTS	IS	101		88.3		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C2-PFHxA	IS	91.1		88.0		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C4-PFHpA	IS	94.4		88.0		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C3-PFHxS	IS	93.0		83.0		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C2-6:2 FTS	IS	81.4		83.4		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C5-PFNA	IS	109		95.9		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C8-PFOA	IS	45.4		42.3		10 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C2-PFOA	IS	98.5		92.0		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C8-PFOS	IS	93.2		88.6		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C2-PFDA	IS	101		88.5		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C2-8:2 FTS	IS	82.1		76.4		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
d3-MeFOSAA	IS	96.2		93.3		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C2-PFUnA	IS	90.4		88.2		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
d5-EtFOSAA	IS	73.7		71.3		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C2-PFDoA	IS	79.9		77.6		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
d3-MeFOSA	IS	17.2		18.4		10 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
13C2-PFTeDA	IS	74.1		57.7		25 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
d5-EtFOSA	IS	17.3		18.8		10 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
d7-MeFOSE	IS	25.6		24.6		10 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1
d9-EtFOSE	IS	26.1		26.1		10 - 150	31-Dec-21 16:18	1	31-Dec-21 16:29	1

Sample ID: 1750 Mirro Dr
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112147-01	Column:	BEH C18
Project:	60673908	Date Collected:	15-Dec-21 17:15	Date Received:	17-Dec-21 10:20		
Location:	Residence						

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.991	0.991	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFPeA	2706-90-3	<0.741	0.741	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFBS	375-73-5	<0.888	0.888	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
4:2 FTS	757124-72-4	<0.932	0.932	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFHxA	307-24-4	<0.800	0.800	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFPeS	2706-91-4	<0.805	0.805	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
HFPO-DA	13252-13-6	<1.54	1.54	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFHpA	375-85-9	<0.918	0.918	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
ADONA	919005-14-4	<0.628	0.628	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFHxS	355-46-4	<1.01	1.01	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
6:2 FTS	27619-97-2	<1.10	1.10	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFOA	335-67-1	<0.937	0.937	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFHpS	375-92-8	<0.584	0.584	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFNA	375-95-1	<0.741	0.741	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFOSA	754-91-6	9.08	1.07	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFOS	1763-23-1	<1.11	1.11	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
9Cl-PF3ONS	756426-58-1	<1.05	1.05	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFDA	335-76-2	<0.927	0.927	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
8:2 FTS	39108-34-4	<1.11	1.11	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFNS	68259-12-1	<1.13	1.13	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
MeFOSAA	2355-31-9	<0.932	0.932	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
EtFOSAA	2991-50-6	<1.02	1.02	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFUnA	2058-94-8	<0.741	0.741	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFDS	335-77-3	<0.746	0.746	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
11Cl-PF3OUdS	763051-92-9	<0.972	0.972	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFDoA	307-55-1	<0.957	0.957	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
MeFOSA	31506-32-8	<2.20	2.20	2.45		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFTrDA	72629-94-8	<0.643	0.643	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFDoS	79780-39-5	<1.39	1.39	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
PFTeDA	376-06-7	<0.800	0.800	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
EtFOSA	4151-50-2	<2.28	2.28	2.45		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
EtFOSE	1691-99-2	<1.54	1.54	1.96		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
MeFOSE	24448-09-7	<1.96	1.96	2.45		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	67.1	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C3-PFPeA	IS	84.2	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C3-PFBS	IS	83.2	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1

Sample ID: 1750 Mirro Dr
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112147-01	Column:	BEH C18
Project:	60673908	Date Collected:	15-Dec-21 17:15	Date Received:	17-Dec-21 10:20		
Location:	Residence						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-HFPO-DA	IS	81.9	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C2-4:2 FTS	IS	97.7	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C2-PFHxA	IS	87.9	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C4-PFHpA	IS	86.1	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C3-PFHxS	IS	87.0	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C2-6:2 FTS	IS	88.2	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C5-PFNA	IS	105	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C8-PFOA	IS	60.8	10 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C2-PFOA	IS	96.1	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C8-PFOS	IS	78.0	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C2-PFDA	IS	78.3	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C2-8:2 FTS	IS	79.8	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
d3-MeFOSAA	IS	98.0	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C2-PFUnA	IS	86.5	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
d5-EtFOSAA	IS	74.4	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C2-PFDoA	IS	82.8	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
d3-MeFOSA	IS	31.6	10 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
13C2-PFTeDA	IS	84.6	25 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
d5-EtFOSA	IS	32.5	10 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
d7-MeFOSE	IS	58.1	10 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1
d9-EtFOSE	IS	55.0	10 - 150		B1L0185	30-Dec-21	0.255 L	31-Dec-21 16:39	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: 2722 Woodland Dr
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112147-02	Column:	BEH C18
Project:	60673908	Date Collected:	16-Dec-21 08:15	Date Received:	17-Dec-21 10:20		
Location:	Residence						

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.02	1.02	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFPeA	2706-90-3	<0.760	0.760	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFBS	375-73-5	<0.911	0.911	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
4:2 FTS	757124-72-4	<0.956	0.956	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFHxA	307-24-4	<0.820	0.820	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFPeS	2706-91-4	<0.825	0.825	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
HFPO-DA	13252-13-6	<1.57	1.57	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFHpA	375-85-9	0.942	0.941	2.01	J	B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
ADONA	919005-14-4	<0.644	0.644	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFHxS	355-46-4	<1.04	1.04	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
6:2 FTS	27619-97-2	<1.13	1.13	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFOA	335-67-1	8.98	0.961	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFHpS	375-92-8	<0.599	0.599	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFNA	375-95-1	<0.760	0.760	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFOSA	754-91-6	106	1.10	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFOS	1763-23-1	<1.14	1.14	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
9Cl-PF3ONS	756426-58-1	<1.07	1.07	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFDA	335-76-2	<0.951	0.951	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
8:2 FTS	39108-34-4	<1.14	1.14	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFNS	68259-12-1	<1.16	1.16	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
MeFOSAA	2355-31-9	<0.956	0.956	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
EtFOSAA	2991-50-6	<1.05	1.05	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFUnA	2058-94-8	<0.760	0.760	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFDS	335-77-3	<0.765	0.765	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
11Cl-PF3OUdS	763051-92-9	<0.996	0.996	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFDoA	307-55-1	<0.981	0.981	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
MeFOSA	31506-32-8	<2.25	2.25	2.52		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFTrDA	72629-94-8	<0.659	0.659	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFDoS	79780-39-5	<1.42	1.42	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
PFTeDA	376-06-7	<0.820	0.820	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
EtFOSA	4151-50-2	<2.34	2.34	2.52		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
EtFOSE	1691-99-2	<1.58	1.58	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
MeFOSE	24448-09-7	<2.01	2.01	2.52		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	65.7	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C3-PFPeA	IS	87.8	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C3-PFBS	IS	87.7	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1

Sample ID: 2722 Woodland Dr
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112147-02	Column:	BEH C18
Project:	60673908	Date Collected:	16-Dec-21 08:15	Date Received:	17-Dec-21 10:20		
Location:	Residence						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-HFPO-DA	IS	80.1	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C2-4:2 FTS	IS	100	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C2-PFHxA	IS	85.6	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C4-PFHpA	IS	84.8	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C3-PFHxS	IS	90.4	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C2-6:2 FTS	IS	84.5	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C5-PFNA	IS	102	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C8-PFOA	IS	68.5	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C2-PFOA	IS	91.2	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C8-PFOS	IS	91.0	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C2-PFDA	IS	94.1	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C2-8:2 FTS	IS	90.4	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
d3-MeFOSAA	IS	99.5	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C2-PFUnA	IS	89.2	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
d5-EtFOSAA	IS	80.8	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C2-PFDoA	IS	84.6	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
d3-MeFOSA	IS	40.4	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
13C2-PFTeDA	IS	83.8	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
d5-EtFOSA	IS	40.4	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
d7-MeFOSE	IS	63.7	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1
d9-EtFOSE	IS	68.5	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 16:49	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: 3104 Woodland Dr
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112147-03	Column:	BEH C18
Project:	60673908	Date Collected:	16-Dec-21 08:45	Date Received:	17-Dec-21 10:20		
Location:	Residence						

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.03	1.03	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFPeA	2706-90-3	<0.770	0.770	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFBS	375-73-5	<0.923	0.923	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
4:2 FTS	757124-72-4	<0.969	0.969	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFHxA	307-24-4	<0.831	0.831	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFPeS	2706-91-4	<0.836	0.836	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
HFPO-DA	13252-13-6	<1.60	1.60	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFHpA	375-85-9	<0.953	0.953	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
ADONA	919005-14-4	<0.653	0.653	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFHxS	355-46-4	<1.05	1.05	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
6:2 FTS	27619-97-2	<1.15	1.15	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFOA	335-67-1	<0.974	0.974	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFHpS	375-92-8	<0.607	0.607	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFNA	375-95-1	<0.770	0.770	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFOSA	754-91-6	11.5	1.11	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFOS	1763-23-1	<1.15	1.15	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
9Cl-PF3ONS	756426-58-1	<1.09	1.09	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFDA	335-76-2	<0.964	0.964	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
8:2 FTS	39108-34-4	<1.16	1.16	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFNS	68259-12-1	<1.18	1.18	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
MeFOSAA	2355-31-9	<0.969	0.969	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
EtFOSAA	2991-50-6	<1.06	1.06	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFUnA	2058-94-8	<0.770	0.770	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFDS	335-77-3	<0.775	0.775	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
11Cl-PF3OUdS	763051-92-9	<1.01	1.01	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFDoA	307-55-1	<0.994	0.994	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
MeFOSA	31506-32-8	<2.28	2.28	2.55		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFTTrDA	72629-94-8	<0.668	0.668	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFDoS	79780-39-5	<1.44	1.44	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
PFTeDA	376-06-7	<0.831	0.831	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
EtFOSA	4151-50-2	<2.37	2.37	2.55		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
EtFOSE	1691-99-2	<1.60	1.60	2.04		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
MeFOSE	24448-09-7	<2.04	2.04	2.55		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	70.0	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C3-PFPeA	IS	89.6	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C3-PFBS	IS	84.0	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1

Sample ID: 3104 Woodland Dr
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112147-03	Column:	BEH C18
Project:	60673908	Date Collected:	16-Dec-21 08:45	Date Received:	17-Dec-21 10:20		
Location:	Residence						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-HFPO-DA	IS	98.9	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C2-4:2 FTS	IS	99.0	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C2-PFHxA	IS	88.8	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C4-PFHpA	IS	87.5	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C3-PFHxS	IS	80.8	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C2-6:2 FTS	IS	80.3	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C5-PFNA	IS	101	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C8-PFOA	IS	57.6	10 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C2-PFOA	IS	86.6	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C8-PFOS	IS	79.4	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C2-PFDA	IS	92.4	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C2-8:2 FTS	IS	80.4	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
d3-MeFOSAA	IS	93.6	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C2-PFUnA	IS	87.5	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
d5-EtFOSAA	IS	84.6	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C2-PFDoA	IS	80.3	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
d3-MeFOSA	IS	25.2	10 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
13C2-PFTeDA	IS	81.3	25 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
d5-EtFOSA	IS	25.2	10 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
d7-MeFOSE	IS	51.5	10 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1
d9-EtFOSE	IS	52.4	10 - 150		B1L0185	30-Dec-21	0.245 L	31-Dec-21 17:30	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: 2519 Woodland Dr
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112147-04	Column:	BEH C18
Project:	60673908	Date Collected:	15-Dec-21 17:45	Date Received:	17-Dec-21 10:20		
Location:	Residence						

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.02	1.02	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFPeA	2706-90-3	<0.760	0.760	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFBS	375-73-5	<0.911	0.911	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
4:2 FTS	757124-72-4	<0.956	0.956	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFHxA	307-24-4	<0.820	0.820	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFPeS	2706-91-4	<0.825	0.825	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
HFPO-DA	13252-13-6	<1.58	1.58	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFHpA	375-85-9	<0.941	0.941	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
ADONA	919005-14-4	<0.644	0.644	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFHxS	355-46-4	<1.04	1.04	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
6:2 FTS	27619-97-2	<1.13	1.13	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFOA	335-67-1	<0.961	0.961	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFHpS	375-92-8	<0.599	0.599	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFNA	375-95-1	<0.760	0.760	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFOSA	754-91-6	21.1	1.10	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFOS	1763-23-1	<1.14	1.14	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
9Cl-PF3ONS	756426-58-1	<1.07	1.07	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFDA	335-76-2	<0.951	0.951	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
8:2 FTS	39108-34-4	<1.14	1.14	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFNS	68259-12-1	<1.16	1.16	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
MeFOSAA	2355-31-9	<0.956	0.956	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
EtFOSAA	2991-50-6	<1.05	1.05	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFUnA	2058-94-8	<0.760	0.760	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFDS	335-77-3	<0.765	0.765	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
11Cl-PF3OUdS	763051-92-9	<0.996	0.996	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFDoA	307-55-1	<0.981	0.981	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
MeFOSA	31506-32-8	<2.25	2.25	2.52		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFTrDA	72629-94-8	<0.659	0.659	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFDoS	79780-39-5	<1.42	1.42	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
PFTeDA	376-06-7	<0.820	0.820	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
EtFOSA	4151-50-2	<2.34	2.34	2.52		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
EtFOSE	1691-99-2	<1.58	1.58	2.01		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
MeFOSE	24448-09-7	<2.01	2.01	2.52		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	57.2	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C3-PFPeA	IS	88.5	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C3-PFBS	IS	85.2	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1

Sample ID: 2519 Woodland Dr
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112147-04	Column:	BEH C18
Project:	60673908	Date Collected:	15-Dec-21 17:45	Date Received:	17-Dec-21 10:20		
Location:	Residence						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-HFPO-DA	IS	83.0	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C2-4:2 FTS	IS	75.9	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C2-PFHxA	IS	89.9	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C4-PFHpA	IS	91.4	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C3-PFHxS	IS	87.7	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C2-6:2 FTS	IS	87.3	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C5-PFNA	IS	105	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C8-PFOA	IS	64.9	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C2-PFOA	IS	95.3	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C8-PFOS	IS	86.1	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C2-PFDA	IS	94.1	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C2-8:2 FTS	IS	75.0	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
d3-MeFOSAA	IS	103	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C2-PFUnA	IS	86.9	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
d5-EtFOSAA	IS	80.3	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C2-PFDoA	IS	81.7	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
d3-MeFOSA	IS	30.4	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
13C2-PFTeDA	IS	80.7	25 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
d5-EtFOSA	IS	28.4	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
d7-MeFOSE	IS	62.8	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1
d9-EtFOSE	IS	65.9	10 - 150		B1L0185	30-Dec-21	0.248 L	31-Dec-21 17:40	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

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
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
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	The ion transition ratio is outside of the acceptance criteria.
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.

Vista Analytical Laboratory 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 17025:2005	3091.01
Florida Department of Health	E87777-26
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1980678
New Hampshire Environmental Accreditation Program	207720
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-016
Pennsylvania Department of Environmental Protection	017
Texas Commission on Environmental Quality	T104704189-21-12
Vermont Department of Health	VT-4042
Virginia Department of General Services	10769
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulfonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A



CHAIN OF CUSTODY

For Laboratory Use Only
 Work Order #: 2112147 Temp: 0.9 °C
 Storage ID: R-13 WR-2 Storage Secured: Yes No

Project ID: 60673908 PO#: _____ Sampler: R. Weseljak (name)

TAT Standard: 21 days
 (check one): Rush (surcharge may apply)
 14 days 7 days Specify: _____

Relinquished by (printed name and signature) Robert Weseljak Date 12/16/21 Time 10:00 am
 Received by (printed name and signature) Karen J. Anost Date 12/17/21 Time 10:20

SHIP TO: Vista Analytical Laboratory
 1104 Windfield Way
 El Dorado Hills, CA 95762
 (916) 673-1520 * Fax (916) 673-0106
 ATTN: _____
 Method of Shipment: Fedex
 Tracking No.: _____

Quantity	Type	Matrix	RED/PEOS	UCMR3 PFAS Lists	537.1 List: 14 or 18 (Circle One)	EPA Draft List of 24	OTHER: Please attach analyte list	PFOA/ PFOS	UCMR3 PFAS List: 6	537.1 List of 14	537.1 List of 18	EPA Method 537 (DW only)	Comments
2	P	AQ	X										
2	P	AQ	X										
2	P	AQ	X										
2	P	AQ	X										

Sample ID	Date	Time	Location/ Sample Description
1750 Mirro Dr	12/15/21	17:15	Residence
2722 Woodland Dr	12/16/21	8:15	↓
3104 Woodland Dr	12/16/21	8:45	↓
2519 Woodland Dr	12/15/21	17:45	↓

Special Instructions/Comment
Ask PM about New MDL

SEND DOCUMENTATION AND RESULTS TO:
 Name: Lanette Altenbach
 Company: Aecom
 Address: 1555 N. RiverCenter Dry Ste 214
 City: Milwaukee State: WI Zip: 53212
 Phone: 414-944-6186
 Email: lanette.altenbach@aecom.com

Container Types: P = HDPE, PJ = HDPE Jar Bottle Preservation Type: _____
 PY = Polypropylene, O= Other TZ= Trizma: _____
 Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
 SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other _____

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2112147 TAT STD

Samples Arrival:	Date/Time <u>12/17/21 10:20</u>		Initials: <u>W</u>		Location: <u>WR-2</u>		
	Shelf/Rack: <u>N12</u>						
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac	<input type="checkbox"/> GLS	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice		<input type="checkbox"/> Blue Ice		<input type="checkbox"/> Techni Ice	<input type="checkbox"/> Dry Ice	<input type="checkbox"/> None
Temp °C: <u>0.9</u> (uncorrected)	Probe used: Y / <input checked="" type="checkbox"/> N			Thermometer ID: <u>IR-3</u>			
Temp °C: <u>0.9</u> (corrected)							

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Airbill <u>/</u> Trk # <u>2876 7952 9456</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container	<input checked="" type="checkbox"/> Vista	<input type="checkbox"/> Client	<input checked="" type="checkbox"/> Retain
	<input type="checkbox"/> Return	<input type="checkbox"/> Dispose	
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Logged In:	Date/Time <u>12/18/21 0747</u>		Initials: <u>W</u>
	Location: <u>R-13 WR-2</u>		
	Shelf/Rack: <u>A-1 F-4</u>		
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments:

CoC/Label Reconciliation Report WO# 2112147

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time		Container	BaseMatrix	Sample Comments
2112147-01	A 1750 Mirro Dr	<input checked="" type="checkbox"/>	Residence	15-Dec-21 17:15	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112147-01	B 1750 Mirro Dr	<input checked="" type="checkbox"/>	Residence	15-Dec-21 17:15	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112147-02	A 2722 Woodland Dr	<input checked="" type="checkbox"/>	Residence	16-Dec-21 08:15	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112147-02	B 2722 Woodland Dr	<input checked="" type="checkbox"/>	Residence	16-Dec-21 08:15	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112147-03	A 3104 Woodland Dr	<input checked="" type="checkbox"/>	Residence	16-Dec-21 08:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112147-03	B 3104 Woodland Dr	<input checked="" type="checkbox"/>	Residence	16-Dec-21 08:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112147-04	A 2519 Woodland Dr	<input checked="" type="checkbox"/>	Residence	15-Dec-21 17:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112147-04	B 2519 Woodland Dr	<input checked="" type="checkbox"/>	Residence	15-Dec-21 17:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 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:

**Originally labeled + reconciled on 12/18/21*

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None ALL Other

Verified by/Date: 12/23/21 *