State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

Notice: This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

NOTE: Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

Notification of Property Owners and Occupants:

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

Site Information

Site Name		DNR ID # (BRRTS #)	
Chippewa Valley Regional Airport		02-18-588115	
Address	**City**	**State**	**ZIP Code**
3800 Starr Avenue	Eau Claire	WI	54703

Responsible Party

The person(s) responsible for completing this environmental investigation is:

Property Owner

Eau Claire County and operated by the Chippewa Valley Regional Airport Commission

Address	City	State	ZIP Code
3800 Starr Avenue	Eau Claire	WI	54703

Contact Person	Phone Number (include area code)
Charity Zich	(715) 839-6241

Person or company that collected samples

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Sample Results (Results Attached)

Reason for Sampling: ○ Routine ◉ Other (define) PFAS Site Investigation (Work Plan)

The contaminants that have been identified at this time on property that you own or occupy include:

Contaminant	In Soil? Yes	In Soil? No	In Groundwater? Yes	In Groundwater? No
Gasoline	○	○	○	○
Diesel or Fuel Oil	○	○	○	○
Solvents	○	○	○	○
Heavy Metals	○	○	○	○
Pesticides	○	○	○	○
Other: PFAS (Wis 33)	◉	○	◉	○

This sampling event included sampling of a drinking water well.
○ Yes ◉ No

If yes, the sampled drinking water well had detectable contaminants.
○ Yes ○ No

Contaminants in Vapor	Yes	No
Indoor Air	○	○
Sub-slab	○	○
Exterior Soil Gas	○	○

Attached are:

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

You are not identified as the person that is responsible for this contamination. However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

Option for written exemption: You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a $700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf.

Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

Environmental Consultant

Company Name	Contact Person Last Name	First Name
AECOM	Mott	Andrew

Address	City	State	ZIP Code
2985 South Ridge Road Suite B	Green Bay	WI	54304

Phone # (inc. area code)	Email
(920) 236-6713	andrew.mott@aecom.com

Select which agency: (●) Natural Resources ( ) Agriculture, Trade and Consumer Protection

State of Wisconsin Department of Natural Resources

Contact Person Last Name	First Name	Phone # (inc. area code)
Thompson	Matt	(715) 492-2304

Address	City	State	ZIP Code
1300 W Clairemont Avenue	Eau Claire	WI	54701-6127

Email
MatthewA.Thompson@wisconsin.gov

Legend

Abandoned Well	NPI Superfund Monitoring Well	WDNR Monitoring Well	PFAS Potenial Areas of Concern	Ditch
Lost Well	NPI Superfund Monitoring Well Nest	WDNR Monitoring Wel Nest	Road	Surface Contours (100-Foot Interval)
City of Eau Claire Monitoring Well	USEPA Monitoring Well	Proposed Hand Auger Locations	Property Line	Surface Contours (10-Foot Interval)
NPI LUST Well	USEPA Monitoring Well Nest	Proposed Monitoring Well Locations	Building	
NPI Superfund Extraction Well			Fence	

NOTES:
1. Northern Portion of Figure Displays 20-Foot Surface Contour Intervals. The Southern Portion of the Figure Displays 10-Foot Contour Intervals.
2. Aerial Imagery: September 22, 2018

0 240 480 960 Feet

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Milwaukee Office
1555 River Center Dr
Milwaukee WI

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CHIPPEWA VALLEY REGIONAL AIRPORT SITE INVESTIGATION

OVERVIEW OF PROPOSED BORINGS AND MONITORING WELLS

Project No. 60669304

Date: July 2022

FIGURE A

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Table 1
Summary of PFAS Contaminants Analyzed in Soil Samples (May 2022)
Chippewa Valley Airport
Eau Claire, Wisconsin

				Location:	AMW-01	AMW-03	AMW-03	AMW-03	AMW-03	AMW-04	AMW-04	AMW-05
				(Sample Depth):	(80-80.5)	(1-2)	(35-37)	(68-70)	(68-70) DUP	(1-2)	(69-70)	(1-2)
				Sample Type:	N	N	N	N	FD	N	N	N
				Sample Date:	5/9/2022	5/13/2022	5/13/2022	5/13/2022	5/13/2022	5/11/2022	5/11/2022	5/12/2022
Acronym	**Analyte**	**CAS No**	**Units**									
Carboxylic Acids:												
PFBA	Perfluorobutanoic acid	375-22-4	ng/g		< 0.458	< 0.456	< 0.442	< 0.447	< 0.439	< 0.45	< 0.449	< 0.44
PFPeA	Perfluoropentanoic acid	2706-90-3	ng/g		< 0.366	< 0.365	< 0.354	< 0.357	< 0.351	< 0.36	< 0.359	< 0.352
PFHxA	Perfluorohexanoic acid	307-24-4	ng/g		< 0.318	< 0.317	< 0.308	< 0.311	< 0.305	< 0.313	< 0.313	< 0.306
PFHpA	Perfluoroheptanoic acid	375-85-9	ng/g		< 0.484	< 0.482	< 0.467	< 0.472	< 0.463	< 0.476	< 0.475	< 0.464
PFOA	Perfluorooctanoic acid	335-67-1	ng/g		< 0.269	0.391 J	< 0.26	< 0.262	< 0.257	< 0.264	< 0.264	< 0.258
PFNA	Perfluorononaoic acid	375-95-1	ng/g		< 0.37	1.78	< 0.358	< 0.361	< 0.355	< 0.364	< 0.363	< 0.356
PFDA	Perfluorodecanoic acid	335-76-2	ng/g		< 0.44	1.37	< 0.425	< 0.429	< 0.421	< 0.433	< 0.432	< 0.422
PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/g		< 0.504	< 0.502	< 0.487	< 0.491	< 0.482	< 0.495	< 0.494	< 0.484
PFDoA	Perfluorododecanoic acid	307-55-1	ng/g		< 0.454	< 0.452	< 0.438	< 0.443	< 0.435	< 0.446	< 0.445	< 0.436
PFTrDA	Perfluorotridecanoic acid	72629-94-8	ng/g		< 0.404	< 0.403	< 0.39	< 0.394	< 0.387	< 0.397	< 0.397	< 0.388
PFTeDA	Perfluorotetradecanoic acid	376-06-7			< 0.426	< 0.425	< 0.412	< 0.416	< 0.408	< 0.419	< 0.418	< 0.409
Sulfonic Acids:												
PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/g		< 0.305	< 0.304	< 0.294	< 0.297	< 0.292	< 0.3	< 0.299	< 0.292
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/g		< 0.299	< 0.298	< 0.288	< 0.291	< 0.286	< 0.294	< 0.293	< 0.287
PFHxS	Perfluorohexanesulfonoic acid	355-46-4	ng/g		< 0.309	< 0.308	1.14	0.507 J	0.333 J	< 0.302	< 0.306	< 0.305
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/g		< 0.514	< 0.512	< 0.496	< 0.501	< 0.492	< 0.505	< 0.504	< 0.493
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/g		< 0.651	31.7	2.19 J	< 0.624	< 0.618	< 0.634	< 0.644	2.41
PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/g		< 0.824	< 0.821	< 0.796	< 0.804	< 0.789	< 0.811	< 0.809	< 0.791
PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/g		< 0.241	< 0.24	< 0.233	< 0.235	< 0.231	< 0.237	< 0.236	< 0.231
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/g		< 0.42	< 0.419	< 0.406	< 0.41	< 0.402	< 0.413	< 0.412	< 0.403
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/g		< 0.641	< 0.639	< 0.619	< 0.625	< 0.614	< 0.63	< 0.629	< 0.615
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/g		< 0.516	11.6	< 0.498	2.31	2.39	< 0.507	< 0.506	< 0.495
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/g		< 0.585	23.9	< 0.565	< 0.571	< 0.561	< 0.576	< 0.574	< 0.562
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols:												
PFOSA	Perfluorooctane sulfonamide	754-91-6	ng/g		< 0.569	< 0.567	< 0.55	< 0.555	< 0.545	< 0.56	< 0.559	< 0.547
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/g		R	< 1.33	< 1.29	R	R	< 1.31	R	< 1.28
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/g		R	2.85 J+	R	R	R	< 0.76	< 0.771	< 0.769
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/g		< 0.402	< 0.401	< 0.388	< 0.392	< 0.385	< 0.396	< 0.395	< 0.386
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/g		< 0.378	< 0.377	< 0.365	< 0.369	< 0.362	< 0.372	< 0.371	< 0.363
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/g		< 0.617	< 0.615	< 0.596	< 0.602	< 0.591	< 0.607	< 0.606	< 0.593
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/g		< 0.733	< 0.73	< 0.708	< 0.715	< 0.702	< 0.721	< 0.719	< 0.703
Replacement Chemicals:												
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/g		< 0.864	< 0.861	< 0.835	< 0.843	< 0.828	< 0.85	< 0.848	< 0.83
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ng/g		< 0.251	< 0.25	< 0.242	< 0.245	< 0.24	< 0.247	< 0.246	< 0.241
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/g		< 0.326	< 0.325	< 0.315	< 0.319	< 0.313	< 0.321	< 0.32	< 0.313
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/g		< 0.529	< 0.528	< 0.512	< 0.517	< 0.507	< 0.521	< 0.52	< 0.508

Note:
ng/g - nanograms per gram
J - Estimated value (+/- indicate the direction of bias).
R - Rejected due to a quality control exceedance (low extractable internal standards (EIS) recovery)
Non-detects reported as < LOD

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Table 1
Summary of PFAS Contaminants Analyzed in Soil Samples (May 2022)
Chippewa Valley Airport
Eau Claire, Wisconsin

				Location:	AMW-05	ASB-01
				(Sample Depth):	(65-67)	(1-2)
				Sample Type:	N	N
				Sample Date:	5/12/2022	5/12/2022
Acronym	**Analyte**	**CAS No**	**Units**			
Carboxylic Acids:						
PFBA	Perfluorobutanoic acid	375-22-4	ng/g		< 0.455	< 0.455
PFPeA	Perfluoropentanoic acid	2706-90-3	ng/g		< 0.364	< 0.364
PFHxA	Perfluorohexanoic acid	307-24-4	ng/g		< 0.316	< 0.317
PFHpA	Perfluoroheptanoic acid	375-85-9	ng/g		< 0.481	< 0.481
PFOA	Perfluorooctanoic acid	335-67-1	ng/g		< 0.267	< 0.267
PFNA	Perfluorononaoic acid	375-95-1	ng/g		< 0.368	< 0.368
PFDA	Perfluorodecanoic acid	335-76-2	ng/g		< 0.437	< 0.437
PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/g		< 0.5	< 0.501
PFDoA	Perfluorododecanoic acid	307-55-1	ng/g		< 0.451	< 0.451
PFTrDA	Perfluorotridecanoic acid	72629-94-8	ng/g		< 0.401	< 0.402
PFTeDA	Perfluorotetradecanoic acid	376-06-7			< 0.423	< 0.424
Sulfonic Acids:						
PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/g		< 0.303	< 0.303
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/g		< 0.297	< 0.297
PFHxS	Perfluorohexanesulfonoic acid	355-46-4	ng/g		< 0.299	< 0.302
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/g		< 0.51	< 0.511
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/g		1.74	< 0.635
PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/g		< 0.819	< 0.819
PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/g		< 0.239	< 0.24
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/g		< 0.417	< 0.418
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/g		< 0.637	< 0.637
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/g		< 0.512	< 0.513
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/g		< 0.581	< 0.582
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols:						
PFOSA	Perfluorooctane sulfonamide	754-91-6	ng/g		< 0.566	< 0.566
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/g		< 1.32	< 1.32
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/g		R	< 0.761
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/g		< 0.399	< 0.4
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/g		< 0.376	< 0.376
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/g		< 0.613	< 0.614
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/g		< 0.728	< 0.728
Replacement Chemicals:						
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/g		< 0.858	< 0.859
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ng/g		< 0.249	< 0.249
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/g		< 0.324	< 0.325
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/g		< 0.526	< 0.527

Note:
ng/g - nanograms per gram
J - Estimated value (+/- indicate the direction of bias).
R - Rejected due to a quality control exceedance (low extractable internal standards (EIS) recovery)
Non-detects reported as < LOD

AECOM

Table 2
Summary of PFAS Contaminants Analyzed in Groundwater Samples (May and June 2022)
Chippewa Valley Airport
Eau Claire, Wisconsin

						Field Sample ID:	AMW-01	AMW-02	AMW-03	AMW-04	AMW-05	MW-51A	MW-51A DUP	MW-55A
						Sample Type:	N	N	N	N	N	N	FD	N
						Sample Date:	6/7/2022	6/7/2022	6/8/2022	6/8/2022	6/7/2022	6/7/2022	6/7/2022	6/7/2022
Acronym	**Analyte**	**CAS No**	**Units**	**ES (proposed)**	**PAL (proposed)**									
Carboxylic Acids:														
PFBA	Perfluorobutanoic acid	375-22-4	ng/L	10000	2000		3.95	R	1120	15.6	22.7	55.7	57.1	5.39
PFPeA	Perfluoropentanoic acid	2706-90-3	ng/L	--	--		9.02	< 1.08	6040	50	51.3	14	14.2	5.94
PFHxA	Perfluorohexanoic acid	307-24-4	ng/L	150000	30000		7.2	< 1.16	3270	27.6	248	14.1	14.3	2.14
PFHpA	Perfluoroheptanoic acid	375-85-9	ng/L	--	--		2.59	< 1.33	1220	17.3	70.6	4.51	3.78	< 0.947
PFOA	Perfluorooctanoic acid	335-67-1	ng/L	20[c]	2[c]		1.99	1.55	**1020**	*11.5*	**553**	*14*	*13.2*	< 0.968
PFNA	Perfluorononaoic acid	375-95-1	ng/L	30	3		< 0.736	< 1.08	*11.8*	< 0.745	*5.91*	< 0.747	< 0.747	< 0.765
PFDA	Perfluorodecanoic acid	335-76-2	ng/L	300	60		< 0.921	< 1.35	< 0.942	< 0.933	< 0.960	< 0.936	< 0.936	< 0.957
PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/L	3000	600		< 0.736	< 1.08	< 0.752	< 0.745	< 0.767	< 0.747	< 0.747	< 0.765
PFDoA	Perfluorododecanoic acid	307-55-1	ng/L	500	100		< 0.951	< 1.39	< 0.972	< 0.962	< 0.991	< 0.965	< 0.965	< 0.988
PFTrDA	Perfluorotridecanoic acid	72629-94-8	ng/L	--	--		< 0.639	R	< 0.653	< 0.647	< 0.666	< 0.648	< 0.648	< 0.664
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ng/L	10000	2000		< 0.795	R	< 0.812	< 0.804	< 0.828	< 0.807	< 0.807	< 0.826
Sulfonic Acids:														
PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/L	450000	90000		6.51	< 1.29	534	4.88	65.4	21.9	21.6	12.6
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/L	--	--		7.05	< 1.17	791	2.83	139	2.22	2	1.89
PFHxS	Perfluorohexanesulfonoic acid	355-46-4	ng/L	40	4		*27*	2.18	**7080**	**52.2**	**3610**	*6.48*	*6.64*	*10.5*
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/L	--	--		< 0.580	< 0.848	273	3.5	90.3	< 0.589	< 0.589	1.64
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/L	20[c]	2[c]		*6.13*	*4.79 J*	**5230**	**230**	**3160**	*2.14*	*2.41*	*11.9 J*
PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/L	--	--		< 1.13	< 1.65	< 1.15	< 1.14	< 1.17	< 1.14	< 1.14	< 1.17
PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/L	--	--		< 0.741	< 1.08	< 0.757	< 0.750	< 0.772	< 0.752	< 0.752	< 0.770
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/L	--	--		< 1.38	< 2.02	< 1.41	< 1.40	< 1.44	< 1.40	< 1.40	< 1.43
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/L	--	--		< 0.926	< 1.35	257	< 0.938	< 0.965	< 0.941	< 0.940	< 0.963
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/L	--	--		9.8	< 1.60	12800 J	119	93.5	< 1.11	< 1.11	< 1.14
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/L	--	--		< 1.11	< 1.62	2.02	< 1.12	7.33	< 1.12	< 1.12	< 1.15
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols:														
PFOSA	Perfluorooctane sulfonamide	754-91-6	ng/L	20[c]	2[c]		< 1.06	*6.98*	< 1.09	1.99	**601**	*2.19 J*	*2.45*	*3.95 J*
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/L	--	--		R	R	< 2.23	< 2.21	< 2.28	< 2.22	< 2.22	< 2.27
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/L	20[c]	2[c]		R	R	< 2.32	< 2.29	< 2.36	< 2.30	< 2.30	< 2.36
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/L	--	--		< 0.926	< 1.35	< 0.947	< 0.938	< 0.965	< 0.941	< 0.940	< 0.963
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/L	20[c]	2[c]		< 1.01	< 1.48	< 1.04	< 1.03	< 1.06	< 1.03	< 1.03	< 1.05
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/L	--	--		< 1.95	R	< 1.99	< 1.97	< 2.03	< 1.98	< 1.98	< 2.03
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/L	20[c]	2[c]		< 1.53	R	< 1.56	< 1.55	< 1.60	< 1.55	< 1.55	< 1.59
Replacement Chemicals:														
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/L	300	30		< 1.53	< 2.23	< 1.56	< 1.54	< 1.59	< 1.55	< 1.55	< 1.59
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ng/L	3000	600		< 0.624	< 0.912	< 0.638	< 0.632	< 0.650	< 0.634	< 0.634	< 0.648
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/L	--	--		< 1.04	< 1.52	< 1.06	< 1.05	< 1.08	< 1.05	< 1.05	< 1.08
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/L	--	--		< 0.965	< 1.41	< 0.986	< 0.977	< 1.01	< 0.980	< 0.980	< 1.00
[C] Sum of FOSA, NEtFOSE, NEtFOSA, NEtFOSAA, PFOS, and PFOA	Sum of FOSA, NEtFOSE, NEtFOSA, NEtFOSAA, PFOS, and PFOA	Combined_6_PFAS	ng/L	20[c]	2[c]		*8.12*	*13.3*	**6250**	**243**	**4310**	*18.3*	*18.1*	*15.9*

Notes:
[C] DHS recommends a combined (c) standard for NEtFOSE, NEtFOSA, NEtFOSAA, FOSA, PFOS and PFOA.
ng/L - nanograms per liter
J - Estimated concentration (+/- indicate the direction of bias).
R - Rejected due to a quality control exceedance (low extractable internal standards (EIS) recovery)
Non-detects reported as < MDL
Bold indicates a ES exceedance, proposed. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
Italics and underlining indicates an PAL exceedance, proposed. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
-- No NR 140 ES or PAL established.
Well #4 collected from driller tank

AECOM

Table 2
Summary of PFAS Contaminants Analyzed in Groundwater Samples (May and June 2022)
Chippewa Valley Airport
Eau Claire, Wisconsin

						Field Sample ID:	WELL #4	DECON WATER (PFAS FREE	DECON WATER (TAP)	EB-051122	EB-060722	FB-051322	AB-060822
						Sample Type:	N	EB	EB	EB	EB	FB	FB
						Sample Date:	5/12/2022	5/10/2022	5/11/2022	5/11/2022	6/7/2022	5/13/2022	6/8/2022
Acronym	**Analyte**	**CAS No**	**Units**	**ES (proposed)**	**PAL (proposed)**								
Carboxylic Acids:													
PFBA	Perfluorobutanoic acid	375-22-4	ng/L	10000	2000		< 1.00	< 0.997	< 1.01	< 0.977	< 0.984	< 0.964	< 0.985
PFPeA	Perfluoropentanoic acid	2706-90-3	ng/L	--	--		< 0.749	< 0.745	< 0.756	< 0.731	< 0.736	< 0.720	< 0.737
PFHxA	Perfluorohexanoic acid	307-24-4	ng/L	150000	30000		< 0.809	< 0.805	< 0.816	< 0.789	< 0.794	< 0.778	< 0.795
PFHpA	Perfluoroheptanoic acid	375-85-9	ng/L	--	--		< 0.928	< 0.923	< 0.936	< 0.905	< 0.911	< 0.892	< 0.912
PFOA	Perfluorooctanoic acid	335-67-1	ng/L	20[c]	2[c]		< 0.948	< 0.943	< 0.956	< 0.924	< 0.931	< 0.911	< 0.932
PFNA	Perfluorononaoic acid	375-95-1	ng/L	30	3		< 0.749	< 0.745	< 0.756	< 0.731	< 0.736	< 0.720	< 0.737
PFDA	Perfluorodecanoic acid	335-76-2	ng/L	300	60		< 0.938	< 0.933	< 0.946	< 0.914	< 0.921	< 0.902	< 0.922
PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/L	3000	600		< 0.749	< 0.745	< 0.756	< 0.731	< 0.736	< 0.720	< 0.737
PFDoA	Perfluorododecanoic acid	307-55-1	ng/L	500	100		< 0.968	< 0.963	< 0.976	< 0.943	< 0.950	< 0.930	< 0.951
PFTrDA	Perfluorotridecanoic acid	72629-94-8	ng/L	--	--		< 0.650	< 0.647	< 0.656	< 0.634	< 0.638	< 0.625	< 0.639
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ng/L	10000	2000		< 0.809	< 0.805	< 0.816	< 0.789	< 0.794	< 0.778	< 0.795
Sulfonic Acids:													
PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/L	450000	90000		< 0.898	< 0.894	< 0.906	< 0.876	< 0.882	< 0.863	< 0.883
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/L	--	--		< 0.814	< 0.810	< 0.821	< 0.793	< 0.799	< 0.782	< 0.800
PFHxS	Perfluorohexanesulfonoic acid	355-46-4	ng/L	40	4		< 1.02	< 1.02	< 1.03	< 0.997	< 1.00	< 0.983	< 1.00
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/L	--	--		< 0.590	< 0.587	< 0.596	< 0.576	< 0.580	< 0.568	< 0.581
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/L	20[c]	2[c]		< 1.12	< 1.12	< 1.13	< 1.09	< 1.10	< 1.08	< 1.10
PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/L	--	--		< 1.15	< 1.14	< 1.16	< 1.12	< 1.13	< 1.10	< 1.13
PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/L	--	--		< 0.754	< 0.750	< 0.761	< 0.735	< 0.741	< 0.725	< 0.742
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/L	--	--		< 1.40	< 1.40	< 1.42	< 1.37	< 1.38	< 1.35	< 1.38
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/L	--	--		< 0.943	< 0.938	< 0.951	< 0.919	< 0.926	< 0.906	< 0.927
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/L	--	--		< 1.12	< 1.11	< 1.13	< 1.09	< 1.10	< 1.07	< 1.10
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/L	--	--		< 1.13	< 1.12	< 1.14	< 1.10	< 1.11	< 1.08	< 1.11
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols:													
PFOSA	Perfluorooctane sulfonamide	754-91-6	ng/L	20[c]	2[c]		*4.87 J+*	1.37 J	*16.1*	1.64 J	< 1.06	< 1.04	< 1.06
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/L	--	--		< 2.22	< 2.21	< 2.24	< 2.17	< 2.18	< 2.14	< 2.19
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/L	20[c]	2[c]		< 2.31	< 2.30	< 2.33	< 2.25	< 2.27	< 2.22	< 2.27
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/L	--	--		< 0.943	< 0.938	< 0.951	< 0.919	< 0.926	< 0.906	< 0.927
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/L	20[c]	2[c]		< 1.03	< 1.03	< 1.04	< 1.01	< 1.01	< 0.992	< 1.01
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/L	--	--		< 1.98	< 1.97	< 2.00	< 1.94	< 1.95	< 1.91	< 1.95
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/L	20[c]	2[c]		R	< 1.55	< 1.57	< 1.52	< 1.53	< 1.50	< 1.53
Replacement Chemicals:													
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/L	300	30		< 1.55	< 1.55	< 1.57	< 1.51	< 1.53	< 1.49	< 1.53
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ng/L	3000	600		< 0.635	< 0.632	< 0.641	< 0.619	< 0.624	< 0.611	< 0.624
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/L	--	--		< 1.06	< 1.05	< 1.07	< 1.03	< 1.04	< 1.02	< 1.04
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/L	--	--		< 0.982	< 0.977	< 0.991	< 0.958	< 0.965	< 0.944	< 0.966
[C] Sum of FOSA, NEtFOSE, NEtFOSA, NEtFOSAA,	Sum of FOSA, NEtFOSE, NEtFOSA, NEtFOSAA, PFOS, and PFOA	Combined_6_PFAS	ng/L	20[c]	2[c]		*4.87*	1.37	*16.1*	1.64			

Notes:
[C] DHS recommends a combined (c) standard for NEtFOSE, NEtFOSA, NEtFOSAA, FOSA, PFOS and PFOA.
ng/L - nanograms per liter
J - Estimated concentration (+/- indicate the direction of bias).
R - Rejected due to a quality control exceedance (low extractable internal standards (EIS) recovery)
Non-detects reported as < MDL
Bold indicates a ES exceedance, proposed. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
Italics and underlining indicates an PAL exceedance, proposed. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
-- No NR 140 ES or PAL established.
Well #4 collected from driller tank

July 12, 2022

Vista Work Order No. 2205141

Mr. Andrew Mott
AECOM
558 North Main Street
Oshkosh, WI 54901

Dear Mr. Mott,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on May 17, 2022 under your Project Name 'CVRA'.

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 Work Order No. 2205141
Case Narrative

Sample Condition on Receipt:

Ten soil samples and five 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. The collection date for sample "AMW-03 (35-37)" was listed as "05/12/22" on the container label.

Analytical Notes:

PFAS Isotope Dilution Method - Solid

The samples were extracted and analyzed for a selected list of PFAS using Vista's 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 method acceptance criteria.

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

The labeled standard recoveries outside the acceptance criteria are listed in the table below.

PFAS Isotope Dilution Method - Aqueous

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. The samples with detections for PFOSA were confirmed through reanalysis.

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 Ongoing Precision and Recovery (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 outside the acceptance criteria are listed in the table below.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
2205141-01	AMW-01 (80-80.5)	PFAS Isotope Dilution Method	d3-MeFOSA	H	7.70
2205141-01	AMW-01 (80-80.5)	PFAS Isotope Dilution Method	d5-EtFOSA	H	2.30
2205141-03	AMW-04 (69-70)	PFAS Isotope Dilution Method	d3-MeFOSA	H	9.60
2205141-06	AMW-05 (65-67)	PFAS Isotope Dilution Method	d5-EtFOSA	H	6.90
2205141-07	AMW-03 (1-2)	PFAS Isotope Dilution Method	d5-EtFOSA	H	9.50
2205141-08	AMW-03 (35-37)	PFAS Isotope Dilution Method	d5-EtFOSA	H	2.80
2205141-09	AMW-03 (68-70)	PFAS Isotope Dilution Method	d3-MeFOSA	H	7.90
2205141-09	AMW-03 (68-70)	PFAS Isotope Dilution Method	d5-EtFOSA	H	2.10
2205141-10	AMW-03 (68-70) Dup	PFAS Isotope Dilution Method	d3-MeFOSA	H	5.30
2205141-10	AMW-03 (68-70) Dup	PFAS Isotope Dilution Method	d5-EtFOSA	H	2.80
2205141-14	Well #4	PFAS Isotope Dilution Method	d5-EtFOSA	H	8.60
B22E216-BLK1	B22E216-BLK1	PFAS Isotope Dilution Method	d5-EtFOSA	H	5.00
B22E216-BS1	B22E216-BS1	PFAS Isotope Dilution Method	d5-EtFOSA	H	5.70
B22F021-BS1	B22F021-BS1	PFAS Isotope Dilution Method	d3-MeFOSA	H	6.80

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2205141-01	AMW-01 (80-80.5)	09-May-22 15:00	17-May-22 09:04	HDPE Jar, 6 oz
2205141-02	AMW-04 (1-2)	11-May-22 13:10	17-May-22 09:04	HDPE Jar, 6 oz
2205141-03	AMW-04 (69-70)	11-May-22 14:50	17-May-22 09:04	HDPE Jar, 6 oz
2205141-04	AMW-05 (1-2)	12-May-22 09:45	17-May-22 09:04	HDPE Jar, 6 oz
2205141-05	ASB-01 (1-2)	12-May-22 10:15	17-May-22 09:04	HDPE Jar, 6 oz
2205141-06	AMW-05 (65-67)	12-May-22 11:20	17-May-22 09:04	HDPE Jar, 6 oz
2205141-07	AMW-03 (1-2)	13-May-22 07:45	17-May-22 09:04	HDPE Jar, 6 oz
2205141-08	AMW-03 (35-37)	13-May-22 09:05	17-May-22 09:04	HDPE Jar, 6 oz
2205141-09	AMW-03 (68-70)	13-May-22 12:30	17-May-22 09:04	HDPE Jar, 6 oz
2205141-10	AMW-03 (68-70) Dup	13-May-22 12:30	17-May-22 09:04	HDPE Jar, 6 oz
2205141-11	Decon water (PFAS Free)	10-May-22 10:20	17-May-22 09:04	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2205141-12	Decon water (Tap)	11-May-22 10:15	17-May-22 09:04	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2205141-13	EB-051122	11-May-22 16:15	17-May-22 09:04	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2205141-14	Well #4	12-May-22 11:30	17-May-22 09:04	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2205141-15	FB-051322	13-May-22 14:00	17-May-22 09:04	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Solid

Laboratory Data

Lab Sample: B22E216-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFHxS	355-46-4	<0.308	0.308	0.500		B22E216	26-May-22	1.00 g	01-Jun-22 18:47	1
PFOS	1763-23-1	<0.648	0.648	1.00		B22E216	26-May-22	1.00 g	01-Jun-22 18:47	1
EtFOSA	4151-50-2	<0.776	0.776	1.00		B22E216	26-May-22	1.00 g	01-Jun-22 18:47	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFHxS	IS	82.7	25 - 150		B22E216	26-May-22	1.00 g	01-Jun-22 18:47	1
13C8-PFOS	IS	87.3	25 - 150		B22E216	26-May-22	1.00 g	01-Jun-22 18:47	1
d5-EtFOSA	IS	5.00	10 - 150	H	B22E216	26-May-22	1.00 g	01-Jun-22 18:47	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: OPR

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA

Matrix: Solid

Laboratory Data

Lab Sample: B22E216-BS1

Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFHxS	355-46-4	1.15	1.00	115	50 - 150		B22E216	26-May-22	1.00 g	01-Jun-22 18:58	1
PFOS	1763-23-1	0.997	1.00	99.7	50 - 150	J	B22E216	26-May-22	1.00 g	01-Jun-22 18:58	1
EtFOSA	4151-50-2	0.631	1.00	63.1	50 - 150	J	B22E216	26-May-22	1.00 g	01-Jun-22 18:58	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFHxS	IS	111	25 - 150		B22E216	26-May-22	1.00 g	01-Jun-22 18:58	1
13C8-PFOS	IS	111	25 - 150		B22E216	26-May-22	1.00 g	01-Jun-22 18:58	1
d5-EtFOSA	IS	5.70	10 - 150	H	B22E216	26-May-22	1.00 g	01-Jun-22 18:58	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Solid

Laboratory Data

Lab Sample: B22F021-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.460	0.460	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFPeA	2706-90-3	<0.368	0.368	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFBS	375-73-5	<0.306	0.306	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
4:2 FTS	757124-72-4	<0.644	0.644	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFHxA	307-24-4	<0.320	0.320	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFPeS	2706-91-4	<0.300	0.300	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
HFPO-DA	13252-13-6	<0.868	0.868	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFHpA	375-85-9	<0.486	0.486	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
ADONA	919005-14-4	<0.252	0.252	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
6:2 FTS	27619-97-2	<0.518	0.518	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFOA	335-67-1	<0.270	0.270	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFHpS	375-92-8	<0.516	0.516	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFNA	375-95-1	<0.372	0.372	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFOSA	754-91-6	<0.572	0.572	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
9Cl-PF3ONS	756426-58-1	<0.328	0.328	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFDA	335-76-2	<0.442	0.442	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
8:2 FTS	39108-34-4	<0.588	0.588	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFNS	68259-12-1	<0.828	0.828	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
MeFOSAA	2355-31-9	<0.404	0.404	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
EtFOSAA	2991-50-6	<0.380	0.380	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFUnA	2058-94-8	<0.506	0.506	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFDS	335-77-3	<0.242	0.242	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
11Cl-PF3OUdS	763051-92-9	<0.532	0.532	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFDoA	307-55-1	<0.456	0.456	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
MeFOSA	31506-32-8	<1.34	1.34	1.50		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFTrDA	72629-94-8	<0.406	0.406	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFDoS	79780-39-5	<0.422	0.422	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
PFTeDA	376-06-7	<0.428	0.428	0.500		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
MeFOSE	24448-09-7	<0.620	0.620	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
EtFOSE	1691-99-2	<0.736	0.736	1.00		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	104	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C3-PFPeA	IS	82.6	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C3-PFBS	IS	87.6	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C2-4:2 FTS	IS	82.8	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C2-PFHxA	IS	84.2	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C3-HFPO-DA	IS	88.8	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C4-PFHpA	IS	85.8	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Solid

Laboratory Data

Lab Sample: B22F021-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-6:2 FTS	IS	72.9	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C2-PFOA	IS	90.8	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C5-PFNA	IS	75.2	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C8-PFOSA	IS	40.6	10 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C2-PFDA	IS	72.8	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C2-8:2 FTS	IS	80.3	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
d3-MeFOSAA	IS	59.9	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
d5-EtFOSAA	IS	63.0	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C2-PFUnA	IS	54.4	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C2-PFDoA	IS	54.3	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
d3-MeFOSA	IS	10.1	10 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
13C2-PFTeDA	IS	64.4	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
d7-MeFOSE	IS	26.4	10 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1
d9-EtFOSE	IS	25.9	10 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:26	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: OPR

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Solid

Laboratory Data

Lab Sample: B22F021-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/g)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	0.994	1.00	99.4	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFPeA	2706-90-3	0.917	1.00	91.7	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFBS	375-73-5	0.784	1.00	78.4	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
4:2 FTS	757124-72-4	0.953	1.00	95.3	50 - 150	J, Q	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFHxA	307-24-4	1.04	1.00	104	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFPeS	2706-91-4	0.900	1.00	90.0	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
HFPO-DA	13252-13-6	1.18	1.00	118	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFHpA	375-85-9	1.00	1.00	100	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
ADONA	919005-14-4	0.915	1.00	91.5	50 - 150	Q	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
6:2 FTS	27619-97-2	0.962	1.00	96.2	50 - 150	J	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFOA	335-67-1	1.01	1.00	101	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFHpS	375-92-8	1.06	1.00	106	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFNA	375-95-1	0.966	1.00	96.6	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFOSA	754-91-6	1.03	1.00	103	50 - 150	Q	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
9Cl-PF3ONS	756426-58-1	0.881	1.00	88.1	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFDA	335-76-2	0.943	1.00	94.3	50 - 150	Q	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
8:2 FTS	39108-34-4	0.685	1.00	68.5	50 - 150	J, Q	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFNS	68259-12-1	0.804	1.00	80.4	50 - 150	J	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
MeFOSAA	2355-31-9	0.877	1.00	87.7	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
EtFOSAA	2991-50-6	0.851	1.00	85.1	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFUnA	2058-94-8	1.22	1.00	122	50 - 150	Q	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFDS	335-77-3	0.983	1.00	98.3	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
11Cl-PF3OUdS	763051-92-9	1.33	1.00	133	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFDoA	307-55-1	0.923	1.00	92.3	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
MeFOSA	31506-32-8	1.06	1.00	106	50 - 150	J, Q	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFTrDA	72629-94-8	1.07	1.00	107	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFDoS	79780-39-5	0.919	1.00	91.9	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
PFTeDA	376-06-7	1.00	1.00	100	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
MeFOSE	24448-09-7	1.40	1.00	140	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
EtFOSE	1691-99-2	1.07	1.00	107	50 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	103	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C3-PFPeA	IS	79.7	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C3-PFBS	IS	84.6	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1

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

Client Data

Name: AECOM
Project: CVRA

Matrix: Solid

Laboratory Data

Lab Sample: B22F021-BS1 Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	80.7	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C2-PFHxA	IS	74.4	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C3-HFPO-DA	IS	75.7	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C4-PFHpA	IS	82.3	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C2-6:2 FTS	IS	71.7	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C2-PFOA	IS	79.0	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C5-PFNA	IS	69.4	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C8-PFOSA	IS	34.6	10 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C2-PFDA	IS	76.2	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C2-8:2 FTS	IS	86.2	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
d3-MeFOSAA	IS	63.1	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
d5-EtFOSAA	IS	57.5	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C2-PFUnA	IS	48.1	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C2-PFDoA	IS	54.3	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
d3-MeFOSA	IS	6.80	10 - 150	H	B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
13C2-PFTeDA	IS	63.3	25 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
d7-MeFOSE	IS	23.9	10 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1
d9-EtFOSE	IS	23.9	10 - 150		B22F021	06-Jun-22	1.00 g	22-Jun-22 16:36	1

Sample ID: AMW-01 (80-80.5)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 09-May-22 15:00

Laboratory Data

Lab Sample: 2205141-01
Date Received: 17-May-22 09:04
% Solids: 89.7
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.458	0.458	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFPeA	2706-90-3	<0.366	0.366	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFBS	375-73-5	<0.305	0.305	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
4:2 FTS	757124-72-4	<0.641	0.641	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFHxA	307-24-4	<0.318	0.318	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFPeS	2706-91-4	<0.299	0.299	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
HFPO-DA	13252-13-6	<0.864	0.864	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFHpA	375-85-9	<0.484	0.484	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
ADONA	919005-14-4	<0.251	0.251	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFHxS	355-46-4	<0.309	0.309	0.502		B22E216	26-May-22	1.11 g	01-Jun-22 20:22	1
6:2 FTS	27619-97-2	<0.516	0.516	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFOA	335-67-1	<0.269	0.269	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFHpS	375-92-8	<0.514	0.514	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFNA	375-95-1	<0.370	0.370	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFOSA	754-91-6	<0.569	0.569	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFOS	1763-23-1	<0.651	0.651	1.00		B22E216	26-May-22	1.11 g	01-Jun-22 20:22	1
9Cl-PF3ONS	756426-58-1	<0.326	0.326	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFDA	335-76-2	<0.440	0.440	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
8:2 FTS	39108-34-4	<0.585	0.585	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFNS	68259-12-1	<0.824	0.824	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
MeFOSAA	2355-31-9	<0.402	0.402	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
EtFOSAA	2991-50-6	<0.378	0.378	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFUnA	2058-94-8	<0.504	0.504	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFDS	335-77-3	<0.241	0.241	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
11Cl-PF3OUdS	763051-92-9	<0.529	0.529	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFDoA	307-55-1	<0.454	0.454	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
MeFOSA	31506-32-8	<1.33	1.33	1.49		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFTrDA	72629-94-8	<0.404	0.404	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFDoS	79780-39-5	<0.420	0.420	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
PFTeDA	376-06-7	<0.426	0.426	0.498		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
EtFOSA	4151-50-2	<0.779	0.779	1.00		B22E216	26-May-22	1.11 g	01-Jun-22 20:22	1
MeFOSE	24448-09-7	<0.617	0.617	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
EtFOSE	1691-99-2	<0.733	0.733	0.995		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	99.7	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C3-PFPeA	IS	76.6	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C3-PFBS	IS	77.8	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1

Sample ID: AMW-01 (80-80.5)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 09-May-22 15:00

Laboratory Data

Lab Sample: 2205141-01
Date Received: 17-May-22 09:04
% Solids: 89.7
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	76.4	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C2-PFHxA	IS	73.5	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C3-HFPO-DA	IS	75.1	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C4-PFHpA	IS	76.7	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C3-PFHxS	IS	79.0	25 - 150		B22E216	26-May-22	1.11 g	01-Jun-22 20:22	1
13C2-6:2 FTS	IS	71.6	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C2-PFOA	IS	85.7	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C5-PFNA	IS	66.1	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C8-PFOSA	IS	42.7	10 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C8-PFOS	IS	78.1	25 - 150		B22E216	26-May-22	1.11 g	01-Jun-22 20:22	1
13C2-PFDA	IS	60.4	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C2-8:2 FTS	IS	80.0	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
d3-MeFOSAA	IS	50.4	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
d5-EtFOSAA	IS	51.6	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C2-PFUnA	IS	66.1	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C2-PFDoA	IS	60.1	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
d3-MeFOSA	IS	7.70	10 - 150	H	B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
13C2-PFTeDA	IS	60.2	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
d5-EtFOSA	IS	2.30	10 - 150	H	B22E216	26-May-22	1.11 g	01-Jun-22 20:22	1
d7-MeFOSE	IS	29.7	10 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1
d9-EtFOSE	IS	28.3	10 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 18:17	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: AMW-04 (1-2)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 11-May-22 13:10

Laboratory Data

Lab Sample: 2205141-02
Date Received: 17-May-22 09:04
% Solids: 94.6
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.450	0.450	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFPeA	2706-90-3	<0.360	0.360	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFBS	375-73-5	<0.300	0.300	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
4:2 FTS	757124-72-4	<0.630	0.630	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFHxA	307-24-4	<0.313	0.313	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFPeS	2706-91-4	<0.294	0.294	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
HFPO-DA	13252-13-6	<0.850	0.850	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFHpA	375-85-9	<0.476	0.476	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
ADONA	919005-14-4	<0.247	0.247	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFHxS	355-46-4	<0.302	0.302	0.490		B22E216	26-May-22	1.08 g	01-Jun-22 20:33	1
6:2 FTS	27619-97-2	<0.507	0.507	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFOA	335-67-1	<0.264	0.264	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFHpS	375-92-8	<0.505	0.505	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFNA	375-95-1	<0.364	0.364	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFOSA	754-91-6	<0.560	0.560	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFOS	1763-23-1	<0.634	0.634	0.979		B22E216	26-May-22	1.08 g	01-Jun-22 20:33	1
9Cl-PF3ONS	756426-58-1	<0.321	0.321	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFDA	335-76-2	<0.433	0.433	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
8:2 FTS	39108-34-4	<0.576	0.576	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFNS	68259-12-1	<0.811	0.811	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
MeFOSAA	2355-31-9	<0.396	0.396	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
EtFOSAA	2991-50-6	<0.372	0.372	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFUnA	2058-94-8	<0.495	0.495	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFDS	335-77-3	<0.237	0.237	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
11Cl-PF3OUdS	763051-92-9	<0.521	0.521	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFDoA	307-55-1	<0.446	0.446	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
MeFOSA	31506-32-8	<1.31	1.31	1.47		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFTrDA	72629-94-8	<0.397	0.397	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFDoS	79780-39-5	<0.413	0.413	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
PFTeDA	376-06-7	<0.419	0.419	0.490		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
EtFOSA	4151-50-2	<0.760	0.760	0.979		B22E216	26-May-22	1.08 g	01-Jun-22 20:33	1
MeFOSE	24448-09-7	<0.607	0.607	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
EtFOSE	1691-99-2	<0.721	0.721	0.979		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	107	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C3-PFPeA	IS	81.3	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C3-PFBS	IS	79.2	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1

Sample ID: AMW-04 (1-2)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 11-May-22 13:10

Laboratory Data

Lab Sample: 2205141-02
Date Received: 17-May-22 09:04
% Solids: 94.6
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	78.8	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C2-PFHxA	IS	76.6	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C3-HFPO-DA	IS	76.5	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C4-PFHpA	IS	78.6	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C3-PFHxS	IS	90.0	25 - 150		B22E216	26-May-22	1.08 g	01-Jun-22 20:33	1
13C2-6:2 FTS	IS	81.5	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C2-PFOA	IS	89.4	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C5-PFNA	IS	68.9	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C8-PFOSA	IS	45.9	10 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C8-PFOS	IS	79.2	25 - 150		B22E216	26-May-22	1.08 g	01-Jun-22 20:33	1
13C2-PFDA	IS	71.2	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C2-8:2 FTS	IS	81.5	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
d3-MeFOSAA	IS	68.0	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
d5-EtFOSAA	IS	65.1	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C2-PFUnA	IS	78.0	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C2-PFDoA	IS	71.0	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
d3-MeFOSA	IS	16.9	10 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
13C2-PFTeDA	IS	53.1	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
d5-EtFOSA	IS	14.4	10 - 150		B22E216	26-May-22	1.08 g	01-Jun-22 20:33	1
d7-MeFOSE	IS	32.3	10 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1
d9-EtFOSE	IS	33.7	10 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 18:27	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: AMW-04 (69-70)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 11-May-22 14:50

Laboratory Data

Lab Sample: 2205141-03
Date Received: 17-May-22 09:04
% Solids: 88.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.449	0.449	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFPeA	2706-90-3	<0.359	0.359	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFBS	375-73-5	<0.299	0.299	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
4:2 FTS	757124-72-4	<0.629	0.629	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFHxA	307-24-4	<0.313	0.313	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFPeS	2706-91-4	<0.293	0.293	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
HFPO-DA	13252-13-6	<0.848	0.848	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFHpA	375-85-9	<0.475	0.475	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
ADONA	919005-14-4	<0.246	0.246	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFHxS	355-46-4	<0.306	0.306	0.497		B22E216	26-May-22	1.14 g	01-Jun-22 20:43	1
6:2 FTS	27619-97-2	<0.506	0.506	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFOA	335-67-1	<0.264	0.264	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFHpS	375-92-8	<0.504	0.504	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFNA	375-95-1	<0.363	0.363	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFOSA	754-91-6	<0.559	0.559	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFOS	1763-23-1	<0.644	0.644	0.994		B22E216	26-May-22	1.14 g	01-Jun-22 20:43	1
9Cl-PF3ONS	756426-58-1	<0.320	0.320	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFDA	335-76-2	<0.432	0.432	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
8:2 FTS	39108-34-4	<0.574	0.574	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFNS	68259-12-1	<0.809	0.809	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
MeFOSAA	2355-31-9	<0.395	0.395	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
EtFOSAA	2991-50-6	<0.371	0.371	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFUnA	2058-94-8	<0.494	0.494	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFDS	335-77-3	<0.236	0.236	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
11Cl-PF3OUdS	763051-92-9	<0.520	0.520	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFDoA	307-55-1	<0.445	0.445	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
MeFOSA	31506-32-8	<1.31	1.31	1.47		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFTrDA	72629-94-8	<0.397	0.397	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFDoS	79780-39-5	<0.412	0.412	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
PFTeDA	376-06-7	<0.418	0.418	0.488		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
EtFOSA	4151-50-2	<0.771	0.771	0.994		B22E216	26-May-22	1.14 g	01-Jun-22 20:43	1
MeFOSE	24448-09-7	<0.606	0.606	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
EtFOSE	1691-99-2	<0.719	0.719	0.977		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	97.0	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C3-PFPeA	IS	81.6	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C3-PFBS	IS	78.1	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1

Sample ID: AMW-04 (69-70)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 11-May-22 14:50

Laboratory Data

Lab Sample: 2205141-03
Date Received: 17-May-22 09:04
% Solids: 88.2
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	77.3	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C2-PFHxA	IS	73.0	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C3-HFPO-DA	IS	75.5	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C4-PFHpA	IS	71.3	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C3-PFHxS	IS	81.5	25 - 150		B22E216	26-May-22	1.14 g	01-Jun-22 20:43	1
13C2-6:2 FTS	IS	73.8	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C2-PFOA	IS	86.8	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C5-PFNA	IS	68.6	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C8-PFOSA	IS	35.7	10 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C8-PFOS	IS	74.3	25 - 150		B22E216	26-May-22	1.14 g	01-Jun-22 20:43	1
13C2-PFDA	IS	61.6	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C2-8:2 FTS	IS	66.2	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
d3-MeFOSAA	IS	51.5	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
d5-EtFOSAA	IS	54.4	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C2-PFUnA	IS	62.8	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C2-PFDoA	IS	59.8	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
d3-MeFOSA	IS	9.60	10 - 150	H	B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
13C2-PFTeDA	IS	49.8	25 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
d5-EtFOSA	IS	12.6	10 - 150		B22E216	26-May-22	1.14 g	01-Jun-22 20:43	1
d7-MeFOSE	IS	23.5	10 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1
d9-EtFOSE	IS	19.8	10 - 150		B22F021	06-Jun-22	1.16 g	10-Jun-22 18:38	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: AMW-05 (1-2)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 12-May-22 09:45

Laboratory Data

Lab Sample: 2205141-04
Date Received: 17-May-22 09:04
% Solids: 91.8
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.440	0.440	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFPeA	2706-90-3	<0.352	0.352	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFBS	375-73-5	<0.292	0.292	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
4:2 FTS	757124-72-4	<0.615	0.615	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFHxA	307-24-4	<0.306	0.306	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFPeS	2706-91-4	<0.287	0.287	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
HFPO-DA	13252-13-6	<0.830	0.830	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFHpA	375-85-9	<0.464	0.464	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
ADONA	919005-14-4	<0.241	0.241	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFHxS	355-46-4	<0.305	0.305	0.495		B22E216	26-May-22	1.10 g	01-Jun-22 21:25	1
6:2 FTS	27619-97-2	<0.495	0.495	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFOA	335-67-1	<0.258	0.258	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFHpS	375-92-8	<0.493	0.493	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFNA	375-95-1	<0.356	0.356	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFOSA	754-91-6	<0.547	0.547	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFOS	1763-23-1	2.41	0.642	0.990		B22E216	26-May-22	1.10 g	01-Jun-22 21:25	1
9Cl-PF3ONS	756426-58-1	<0.313	0.313	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFDA	335-76-2	<0.422	0.422	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
8:2 FTS	39108-34-4	<0.562	0.562	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFNS	68259-12-1	<0.791	0.791	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
MeFOSAA	2355-31-9	<0.386	0.386	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
EtFOSAA	2991-50-6	<0.363	0.363	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFUnA	2058-94-8	<0.484	0.484	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFDS	335-77-3	<0.231	0.231	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
11Cl-PF3OUdS	763051-92-9	<0.508	0.508	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFDoA	307-55-1	<0.436	0.436	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
MeFOSA	31506-32-8	<1.28	1.28	1.43		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFTrDA	72629-94-8	<0.388	0.388	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFDoS	79780-39-5	<0.403	0.403	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
PFTeDA	376-06-7	<0.409	0.409	0.478		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
EtFOSA	4151-50-2	<0.769	0.769	0.990		B22E216	26-May-22	1.10 g	01-Jun-22 21:25	1
MeFOSE	24448-09-7	<0.593	0.593	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
EtFOSE	1691-99-2	<0.703	0.703	0.956		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	109	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C3-PFPeA	IS	86.6	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C3-PFBS	IS	88.8	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1

Sample ID: AMW-05 (1-2)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 12-May-22 09:45

Laboratory Data

Lab Sample: 2205141-04
Date Received: 17-May-22 09:04
% Solids: 91.8
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	87.3	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C2-PFHxA	IS	85.4	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C3-HFPO-DA	IS	78.2	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C4-PFHpA	IS	82.3	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C3-PFHxS	IS	82.7	25 - 150		B22E216	26-May-22	1.10 g	01-Jun-22 21:25	1
13C2-6:2 FTS	IS	99.0	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C2-PFOA	IS	92.6	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C5-PFNA	IS	69.8	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C8-PFOSA	IS	54.4	10 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C8-PFOS	IS	81.7	25 - 150		B22E216	26-May-22	1.10 g	01-Jun-22 21:25	1
13C2-PFDA	IS	72.6	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C2-8:2 FTS	IS	89.8	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
d3-MeFOSAA	IS	71.1	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
d5-EtFOSAA	IS	71.4	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C2-PFUnA	IS	85.2	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C2-PFDoA	IS	73.8	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
d3-MeFOSA	IS	18.3	10 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
13C2-PFTeDA	IS	53.8	25 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
d5-EtFOSA	IS	18.9	10 - 150		B22E216	26-May-22	1.10 g	01-Jun-22 21:25	1
d7-MeFOSE	IS	42.4	10 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1
d9-EtFOSE	IS	43.5	10 - 150		B22F021	06-Jun-22	1.14 g	10-Jun-22 19:20	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: ASB-01 (1-2)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 12-May-22 10:15

Laboratory Data

Lab Sample: 2205141-05
Date Received: 17-May-22 09:04
% Solids: 93.6
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.455	0.455	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFPeA	2706-90-3	<0.364	0.364	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFBS	375-73-5	<0.303	0.303	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
4:2 FTS	757124-72-4	<0.637	0.637	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFHxA	307-24-4	<0.317	0.317	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFPeS	2706-91-4	<0.297	0.297	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
HFPO-DA	13252-13-6	<0.859	0.859	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFHpA	375-85-9	<0.481	0.481	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
ADONA	919005-14-4	<0.249	0.249	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFHxS	355-46-4	<0.302	0.302	0.490		B22E216	26-May-22	1.09 g	01-Jun-22 21:36	1
6:2 FTS	27619-97-2	<0.513	0.513	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFOA	335-67-1	<0.267	0.267	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFHpS	375-92-8	<0.511	0.511	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFNA	375-95-1	<0.368	0.368	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFOSA	754-91-6	<0.566	0.566	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFOS	1763-23-1	<0.635	0.635	0.981		B22E216	26-May-22	1.09 g	01-Jun-22 21:36	1
9Cl-PF3ONS	756426-58-1	<0.325	0.325	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFDA	335-76-2	<0.437	0.437	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
8:2 FTS	39108-34-4	<0.582	0.582	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFNS	68259-12-1	<0.819	0.819	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
MeFOSAA	2355-31-9	<0.400	0.400	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
EtFOSAA	2991-50-6	<0.376	0.376	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFUnA	2058-94-8	<0.501	0.501	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFDS	335-77-3	<0.240	0.240	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
11Cl-PF3OUdS	763051-92-9	<0.527	0.527	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFDoA	307-55-1	<0.451	0.451	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
MeFOSA	31506-32-8	<1.32	1.32	1.48		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFTrDA	72629-94-8	<0.402	0.402	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFDoS	79780-39-5	<0.418	0.418	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
PFTeDA	376-06-7	<0.424	0.424	0.495		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
EtFOSA	4151-50-2	<0.761	0.761	0.981		B22E216	26-May-22	1.09 g	01-Jun-22 21:36	1
MeFOSE	24448-09-7	<0.614	0.614	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
EtFOSE	1691-99-2	<0.728	0.728	0.990		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	99.9	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C3-PFPeA	IS	79.9	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C3-PFBS	IS	77.8	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1

Sample ID: ASB-01 (1-2)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 12-May-22 10:15

Laboratory Data

Lab Sample: 2205141-05
Date Received: 17-May-22 09:04
% Solids: 93.6
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	82.4	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C2-PFHxA	IS	76.1	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C3-HFPO-DA	IS	69.4	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C4-PFHpA	IS	76.3	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C3-PFHxS	IS	76.1	25 - 150		B22E216	26-May-22	1.09 g	01-Jun-22 21:36	1
13C2-6:2 FTS	IS	79.5	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C2-PFOA	IS	81.0	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C5-PFNA	IS	67.6	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C8-PFOSA	IS	49.9	10 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C8-PFOS	IS	68.2	25 - 150		B22E216	26-May-22	1.09 g	01-Jun-22 21:36	1
13C2-PFDA	IS	69.0	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C2-8:2 FTS	IS	74.7	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
d3-MeFOSAA	IS	67.2	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
d5-EtFOSAA	IS	67.1	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C2-PFUnA	IS	75.8	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C2-PFDoA	IS	65.5	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
d3-MeFOSA	IS	23.9	10 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
13C2-PFTeDA	IS	65.4	25 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
d5-EtFOSA	IS	13.9	10 - 150		B22E216	26-May-22	1.09 g	01-Jun-22 21:36	1
d7-MeFOSE	IS	42.1	10 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1
d9-EtFOSE	IS	38.5	10 - 150		B22F021	06-Jun-22	1.08 g	10-Jun-22 19:30	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: AMW-05 (65-67)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 12-May-22 11:20

Laboratory Data

Lab Sample: 2205141-06
Date Received: 17-May-22 09:04
% Solids: 98.2
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.455	0.455	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFPeA	2706-90-3	<0.364	0.364	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFBS	375-73-5	<0.303	0.303	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
4:2 FTS	757124-72-4	<0.637	0.637	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFHxA	307-24-4	<0.316	0.316	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFPeS	2706-91-4	<0.297	0.297	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
HFPO-DA	13252-13-6	<0.858	0.858	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFHpA	375-85-9	<0.481	0.481	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
ADONA	919005-14-4	<0.249	0.249	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFHxS	355-46-4	<0.299	0.299	0.485		B22E216	26-May-22	1.05 g	01-Jun-22 21:46	1
6:2 FTS	27619-97-2	<0.512	0.512	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFOA	335-67-1	<0.267	0.267	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFHpS	375-92-8	<0.510	0.510	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFNA	375-95-1	<0.368	0.368	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFOSA	754-91-6	<0.566	0.566	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFOS	1763-23-1	1.74	0.629	0.970		B22E216	26-May-22	1.05 g	01-Jun-22 21:46	1
9Cl-PF3ONS	756426-58-1	<0.324	0.324	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFDA	335-76-2	<0.437	0.437	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
8:2 FTS	39108-34-4	<0.581	0.581	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFNS	68259-12-1	<0.819	0.819	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
MeFOSAA	2355-31-9	<0.399	0.399	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
EtFOSAA	2991-50-6	<0.376	0.376	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFUnA	2058-94-8	<0.500	0.500	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFDS	335-77-3	<0.239	0.239	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
11Cl-PF3OUdS	763051-92-9	<0.526	0.526	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFDoA	307-55-1	<0.451	0.451	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
MeFOSA	31506-32-8	<1.32	1.32	1.48		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFTrDA	72629-94-8	<0.401	0.401	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFDoS	79780-39-5	<0.417	0.417	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
PFTeDA	376-06-7	<0.423	0.423	0.494		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
EtFOSA	4151-50-2	<0.753	0.753	0.970		B22E216	26-May-22	1.05 g	01-Jun-22 21:46	1
MeFOSE	24448-09-7	<0.613	0.613	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
EtFOSE	1691-99-2	<0.728	0.728	0.989		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	108	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C3-PFPeA	IS	85.4	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C3-PFBS	IS	84.4	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1

Sample ID: AMW-05 (65-67)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 12-May-22 11:20

Laboratory Data

Lab Sample: 2205141-06
Date Received: 17-May-22 09:04
% Solids: 98.2
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	84.0	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C2-PFHxA	IS	80.5	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C3-HFPO-DA	IS	74.6	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C4-PFHpA	IS	79.5	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C3-PFHxS	IS	78.6	25 - 150		B22E216	26-May-22	1.05 g	01-Jun-22 21:46	1
13C2-6:2 FTS	IS	89.1	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C2-PFOA	IS	98.9	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C5-PFNA	IS	62.0	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C8-PFOSA	IS	43.4	10 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C8-PFOS	IS	76.7	25 - 150		B22E216	26-May-22	1.05 g	01-Jun-22 21:46	1
13C2-PFDA	IS	63.8	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C2-8:2 FTS	IS	80.5	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
d3-MeFOSAA	IS	62.8	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
d5-EtFOSAA	IS	57.4	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C2-PFUnA	IS	66.4	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C2-PFDoA	IS	62.1	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
d3-MeFOSA	IS	13.2	10 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
13C2-PFTeDA	IS	63.5	25 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
d5-EtFOSA	IS	6.90	10 - 150	H	B22E216	26-May-22	1.05 g	01-Jun-22 21:46	1
d7-MeFOSE	IS	30.4	10 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1
d9-EtFOSE	IS	29.5	10 - 150		B22F021	06-Jun-22	1.03 g	10-Jun-22 19:41	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: AMW-03 (1-2)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 13-May-22 07:45

Laboratory Data

Lab Sample: 2205141-07
Date Received: 17-May-22 09:04
% Solids: 96.0
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.456	0.456	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFPeA	2706-90-3	<0.365	0.365	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFBS	375-73-5	<0.304	0.304	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
4:2 FTS	757124-72-4	<0.639	0.639	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFHxA	307-24-4	<0.317	0.317	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFPeS	2706-91-4	<0.298	0.298	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
HFPO-DA	13252-13-6	<0.861	0.861	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFHpA	375-85-9	<0.482	0.482	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
ADONA	919005-14-4	<0.250	0.250	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFHxS	355-46-4	<0.308	0.308	0.501		B22E216	26-May-22	1.04 g	01-Jun-22 21:57	1
6:2 FTS	27619-97-2	11.6	0.514	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFOA	335-67-1	0.391	0.268	0.496	J	B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFHpS	375-92-8	<0.512	0.512	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFNA	375-95-1	1.78	0.369	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFOSA	754-91-6	<0.567	0.567	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFOS	1763-23-1	31.7	0.649	1.00		B22E216	26-May-22	1.04 g	01-Jun-22 21:57	1
9Cl-PF3ONS	756426-58-1	<0.325	0.325	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFDA	335-76-2	1.37	0.438	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
8:2 FTS	39108-34-4	23.9	0.583	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFNS	68259-12-1	<0.821	0.821	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
MeFOSAA	2355-31-9	<0.401	0.401	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
EtFOSAA	2991-50-6	<0.377	0.377	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFUnA	2058-94-8	<0.502	0.502	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFDS	335-77-3	<0.240	0.240	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
11Cl-PF3OUdS	763051-92-9	<0.528	0.528	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFDoA	307-55-1	<0.452	0.452	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
MeFOSA	31506-32-8	<1.33	1.33	1.49		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFTrDA	72629-94-8	<0.403	0.403	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFDoS	79780-39-5	<0.419	0.419	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
PFTeDA	376-06-7	<0.425	0.425	0.496		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
EtFOSA	4151-50-2	2.85	0.777	1.00	Q	B22E216	26-May-22	1.04 g	01-Jun-22 21:57	1
MeFOSE	24448-09-7	<0.615	0.615	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
EtFOSE	1691-99-2	<0.730	0.730	0.992		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	105	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C3-PFPeA	IS	84.2	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C3-PFBS	IS	74.1	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1

Sample ID: AMW-03 (1-2)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 13-May-22 07:45

Laboratory Data

Lab Sample: 2205141-07
Date Received: 17-May-22 09:04
% Solids: 96.0
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	79.2	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C2-PFHxA	IS	79.3	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C3-HFPO-DA	IS	74.6	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C4-PFHpA	IS	84.7	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C3-PFHxS	IS	84.0	25 - 150		B22E216	26-May-22	1.04 g	01-Jun-22 21:57	1
13C2-6:2 FTS	IS	90.5	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C2-PFOA	IS	100	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C5-PFNA	IS	73.6	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C8-PFOSA	IS	59.5	10 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C8-PFOS	IS	80.9	25 - 150		B22E216	26-May-22	1.04 g	01-Jun-22 21:57	1
13C2-PFDA	IS	65.9	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C2-8:2 FTS	IS	80.3	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
d3-MeFOSAA	IS	62.8	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
d5-EtFOSAA	IS	61.6	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C2-PFUnA	IS	70.4	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C2-PFDoA	IS	67.3	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
d3-MeFOSA	IS	18.5	10 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
13C2-PFTeDA	IS	75.3	25 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
d5-EtFOSA	IS	9.50	10 - 150	H	B22E216	26-May-22	1.04 g	01-Jun-22 21:57	1
d7-MeFOSE	IS	35.5	10 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1
d9-EtFOSE	IS	32.0	10 - 150		B22F021	06-Jun-22	1.05 g	10-Jun-22 19:51	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: AMW-03 (35-37)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 13-May-22 09:05

Laboratory Data

Lab Sample: 2205141-08
Date Received: 17-May-22 09:04
% Solids: 98.1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.442	0.442	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFPeA	2706-90-3	<0.354	0.354	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFBS	375-73-5	<0.294	0.294	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
4:2 FTS	757124-72-4	<0.619	0.619	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFHxA	307-24-4	<0.308	0.308	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFPeS	2706-91-4	<0.288	0.288	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
HFPO-DA	13252-13-6	<0.835	0.835	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFHpA	375-85-9	<0.467	0.467	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
ADONA	919005-14-4	<0.242	0.242	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFHxS	355-46-4	1.14	0.293	0.476		B22E216	26-May-22	1.07 g	01-Jun-22 22:07	1
6:2 FTS	27619-97-2	<0.498	0.498	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFOA	335-67-1	<0.260	0.260	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFHpS	375-92-8	<0.496	0.496	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFNA	375-95-1	<0.358	0.358	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFOSA	754-91-6	<0.550	0.550	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFOS	1763-23-1	2.19	0.617	0.953	Q	B22E216	26-May-22	1.07 g	01-Jun-22 22:07	1
9Cl-PF3ONS	756426-58-1	<0.315	0.315	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFDA	335-76-2	<0.425	0.425	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
8:2 FTS	39108-34-4	<0.565	0.565	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFNS	68259-12-1	<0.796	0.796	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
MeFOSAA	2355-31-9	<0.388	0.388	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
EtFOSAA	2991-50-6	<0.365	0.365	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFUnA	2058-94-8	<0.487	0.487	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFDS	335-77-3	<0.233	0.233	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
11Cl-PF3OUdS	763051-92-9	<0.512	0.512	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFDoA	307-55-1	<0.438	0.438	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
MeFOSA	31506-32-8	<1.29	1.29	1.44		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFTrDA	72629-94-8	<0.390	0.390	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFDoS	79780-39-5	<0.406	0.406	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
PFTeDA	376-06-7	<0.412	0.412	0.481		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
EtFOSA	4151-50-2	<0.739	0.739	0.953		B22E216	26-May-22	1.07 g	01-Jun-22 22:07	1
MeFOSE	24448-09-7	<0.596	0.596	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
EtFOSE	1691-99-2	<0.708	0.708	0.962		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	107	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C3-PFPeA	IS	90.0	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C3-PFBS	IS	80.9	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1

Sample ID: AMW-03 (35-37)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 13-May-22 09:05

Laboratory Data

Lab Sample: 2205141-08
Date Received: 17-May-22 09:04
% Solids: 98.1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	77.6	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C2-PFHxA	IS	84.8	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C3-HFPO-DA	IS	72.9	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C4-PFHpA	IS	86.7	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C3-PFHxS	IS	86.6	25 - 150		B22E216	26-May-22	1.07 g	01-Jun-22 22:07	1
13C2-6:2 FTS	IS	82.0	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C2-PFOA	IS	83.6	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C5-PFNA	IS	67.2	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C8-PFOSA	IS	42.9	10 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C8-PFOS	IS	76.0	25 - 150		B22E216	26-May-22	1.07 g	01-Jun-22 22:07	1
13C2-PFDA	IS	64.8	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C2-8:2 FTS	IS	77.2	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
d3-MeFOSAA	IS	63.2	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
d5-EtFOSAA	IS	63.1	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C2-PFUnA	IS	68.3	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C2-PFDoA	IS	63.8	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
d3-MeFOSA	IS	10.3	10 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
13C2-PFTeDA	IS	63.9	25 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
d5-EtFOSA	IS	2.80	10 - 150	H	B22E216	26-May-22	1.07 g	01-Jun-22 22:07	1
d7-MeFOSE	IS	37.7	10 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1
d9-EtFOSE	IS	32.8	10 - 150		B22F021	06-Jun-22	1.06 g	10-Jun-22 20:02	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: AMW-03 (68-70)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 13-May-22 12:30

Laboratory Data

Lab Sample: 2205141-09
Date Received: 17-May-22 09:04
% Solids: 91.9
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.447	0.447	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFPeA	2706-90-3	<0.357	0.357	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFBS	375-73-5	<0.297	0.297	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
4:2 FTS	757124-72-4	<0.625	0.625	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFHxA	307-24-4	<0.311	0.311	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFPeS	2706-91-4	<0.291	0.291	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
HFPO-DA	13252-13-6	<0.843	0.843	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFHpA	375-85-9	<0.472	0.472	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
ADONA	919005-14-4	<0.245	0.245	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFHxS	355-46-4	0.507	0.296	0.481	Q	B22E216	26-May-22	1.13 g	01-Jun-22 22:18	1
6:2 FTS	27619-97-2	2.31	0.503	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFOA	335-67-1	<0.262	0.262	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFHpS	375-92-8	<0.501	0.501	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFNA	375-95-1	<0.361	0.361	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFOSA	754-91-6	<0.555	0.555	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFOS	1763-23-1	<0.624	0.624	0.962		B22E216	26-May-22	1.13 g	01-Jun-22 22:18	1
9Cl-PF3ONS	756426-58-1	<0.319	0.319	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFDA	335-76-2	<0.429	0.429	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
8:2 FTS	39108-34-4	<0.571	0.571	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFNS	68259-12-1	<0.804	0.804	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
MeFOSAA	2355-31-9	<0.392	0.392	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
EtFOSAA	2991-50-6	<0.369	0.369	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFUnA	2058-94-8	<0.491	0.491	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFDS	335-77-3	<0.235	0.235	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
11Cl-PF3OUdS	763051-92-9	<0.517	0.517	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFDoA	307-55-1	<0.443	0.443	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
MeFOSA	31506-32-8	<1.30	1.30	1.46		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFTrDA	72629-94-8	<0.394	0.394	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFDoS	79780-39-5	<0.410	0.410	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
PFTeDA	376-06-7	<0.416	0.416	0.486		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
EtFOSA	4151-50-2	<0.747	0.747	0.962		B22E216	26-May-22	1.13 g	01-Jun-22 22:18	1
MeFOSE	24448-09-7	<0.602	0.602	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
EtFOSE	1691-99-2	<0.715	0.715	0.971		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	107	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C3-PFPeA	IS	85.4	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C3-PFBS	IS	80.0	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1

Sample ID: AMW-03 (68-70)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 13-May-22 12:30

Laboratory Data

Lab Sample: 2205141-09
Date Received: 17-May-22 09:04
% Solids: 91.9
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	84.9	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C2-PFHxA	IS	82.0	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C3-HFPO-DA	IS	80.7	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C4-PFHpA	IS	84.8	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C3-PFHxS	IS	69.8	25 - 150		B22E216	26-May-22	1.13 g	01-Jun-22 22:18	1
13C2-6:2 FTS	IS	81.0	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C2-PFOA	IS	84.1	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C5-PFNA	IS	53.6	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C8-PFOSA	IS	33.1	10 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C8-PFOS	IS	55.3	25 - 150		B22E216	26-May-22	1.13 g	01-Jun-22 22:18	1
13C2-PFDA	IS	54.0	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C2-8:2 FTS	IS	81.4	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
d3-MeFOSAA	IS	57.7	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
d5-EtFOSAA	IS	52.7	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C2-PFUnA	IS	64.1	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C2-PFDoA	IS	68.6	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
d3-MeFOSA	IS	7.90	10 - 150	H	B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
13C2-PFTeDA	IS	60.0	25 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
d5-EtFOSA	IS	2.10	10 - 150	H	B22E216	26-May-22	1.13 g	01-Jun-22 22:18	1
d7-MeFOSE	IS	24.5	10 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1
d9-EtFOSE	IS	23.1	10 - 150		B22F021	06-Jun-22	1.12 g	10-Jun-22 20:12	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: AMW-03 (68-70) Dup

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 13-May-22 12:30

Laboratory Data

Lab Sample: 2205141-10
Date Received: 17-May-22 09:04
% Solids: 89.6
Column: BEH C18

Analyte	CAS Number	Conc. (ng/g)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.439	0.439	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFPeA	2706-90-3	<0.351	0.351	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFBS	375-73-5	<0.292	0.292	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
4:2 FTS	757124-72-4	<0.614	0.614	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFHxA	307-24-4	<0.305	0.305	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFPeS	2706-91-4	<0.286	0.286	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
HFPO-DA	13252-13-6	<0.828	0.828	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFHpA	375-85-9	<0.463	0.463	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
ADONA	919005-14-4	<0.240	0.240	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFHxS	355-46-4	0.333	0.294	0.477	J	B22E216	26-May-22	1.17 g	01-Jun-22 22:28	1
6:2 FTS	27619-97-2	2.39	0.494	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFOA	335-67-1	<0.257	0.257	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFHpS	375-92-8	<0.492	0.492	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFNA	375-95-1	<0.355	0.355	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFOSA	754-91-6	<0.545	0.545	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFOS	1763-23-1	<0.618	0.618	0.953		B22E216	26-May-22	1.17 g	01-Jun-22 22:28	1
9Cl-PF3ONS	756426-58-1	<0.313	0.313	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFDA	335-76-2	<0.421	0.421	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
8:2 FTS	39108-34-4	<0.561	0.561	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFNS	68259-12-1	<0.789	0.789	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
MeFOSAA	2355-31-9	<0.385	0.385	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
EtFOSAA	2991-50-6	<0.362	0.362	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFUnA	2058-94-8	<0.482	0.482	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFDS	335-77-3	<0.231	0.231	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
11Cl-PF3OUdS	763051-92-9	<0.507	0.507	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFDoA	307-55-1	<0.435	0.435	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
MeFOSA	31506-32-8	<1.28	1.28	1.43		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFTrDA	72629-94-8	<0.387	0.387	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFDoS	79780-39-5	<0.402	0.402	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
PFTeDA	376-06-7	<0.408	0.408	0.477		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
EtFOSA	4151-50-2	<0.740	0.740	0.953		B22E216	26-May-22	1.17 g	01-Jun-22 22:28	1
MeFOSE	24448-09-7	<0.591	0.591	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
EtFOSE	1691-99-2	<0.702	0.702	0.953		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	105	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C3-PFPeA	IS	85.5	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C3-PFBS	IS	71.7	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1

Sample ID: AMW-03 (68-70) Dup

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Soil
Date Collected: 13-May-22 12:30

Laboratory Data

Lab Sample: 2205141-10
Date Received: 17-May-22 09:04
% Solids: 89.6
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	81.5	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C2-PFHxA	IS	81.5	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C3-HFPO-DA	IS	77.7	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C4-PFHpA	IS	82.1	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C3-PFHxS	IS	78.9	25 - 150		B22E216	26-May-22	1.17 g	01-Jun-22 22:28	1
13C2-6:2 FTS	IS	82.7	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C2-PFOA	IS	90.0	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C5-PFNA	IS	72.9	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C8-PFOSA	IS	42.4	10 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C8-PFOS	IS	56.9	25 - 150		B22E216	26-May-22	1.17 g	01-Jun-22 22:28	1
13C2-PFDA	IS	62.7	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C2-8:2 FTS	IS	71.4	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
d3-MeFOSAA	IS	54.3	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
d5-EtFOSAA	IS	54.0	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C2-PFUnA	IS	69.6	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C2-PFDoA	IS	69.1	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
d3-MeFOSA	IS	5.30	10 - 150	H	B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
13C2-PFTeDA	IS	66.0	25 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
d5-EtFOSA	IS	2.80	10 - 150	H	B22E216	26-May-22	1.17 g	01-Jun-22 22:28	1
d7-MeFOSE	IS	42.3	10 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1
d9-EtFOSE	IS	43.4	10 - 150		B22F021	06-Jun-22	1.17 g	10-Jun-22 20:23	1

MDL - Method Detection Limit

RL - Reporting limit

The results are reported in dry weight.
The sample size is reported in wet weight.
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: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous

Laboratory Data

Lab Sample: B22E192-BLK1
Column: BEH C18

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		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFPeA	2706-90-3	<0.755	0.755	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFBS	375-73-5	<0.905	0.905	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
4:2 FTS	757124-72-4	<0.950	0.950	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFHxA	307-24-4	<0.815	0.815	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFPeS	2706-91-4	<0.820	0.820	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
HFPO-DA	13252-13-6	<1.57	1.57	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFHpA	375-85-9	<0.935	0.935	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
ADONA	919005-14-4	<0.640	0.640	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFHxS	355-46-4	<1.03	1.03	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
6:2 FTS	27619-97-2	<1.13	1.13	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFOA	335-67-1	<0.955	0.955	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFHpS	375-92-8	<0.595	0.595	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFNA	375-95-1	<0.755	0.755	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFOSA	754-91-6	<1.09	1.09	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFOS	1763-23-1	<1.13	1.13	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
9Cl-PF3ONS	756426-58-1	<1.07	1.07	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFDA	335-76-2	<0.945	0.945	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
8:2 FTS	39108-34-4	<1.14	1.14	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFNS	68259-12-1	<1.16	1.16	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
MeFOSAA	2355-31-9	<0.950	0.950	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
EtFOSAA	2991-50-6	<1.04	1.04	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFUnA	2058-94-8	<0.755	0.755	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFDS	335-77-3	<0.760	0.760	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
11Cl-PF3OUdS	763051-92-9	<0.990	0.990	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFDoA	307-55-1	<0.975	0.975	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
MeFOSA	31506-32-8	<2.24	2.24	2.50		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFTrDA	72629-94-8	<0.655	0.655	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFDoS	79780-39-5	<1.42	1.42	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
PFTeDA	376-06-7	<0.815	0.815	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
EtFOSA	4151-50-2	<2.33	2.33	2.50		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
MeFOSE	24448-09-7	<2.00	2.00	2.50		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
EtFOSE	1691-99-2	<1.57	1.57	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	64.6	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C3-PFPeA	IS	72.1	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C3-PFBS	IS	87.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C2-4:2 FTS	IS	78.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous

Laboratory Data

Lab Sample: B22E192-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	IS	82.9	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C3-HFPO-DA	IS	88.8	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C4-PFHpA	IS	82.8	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C3-PFHxS	IS	83.7	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C2-6:2 FTS	IS	80.9	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C2-PFOA	IS	80.3	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C5-PFNA	IS	79.0	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C8-PFOSA	IS	58.1	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C8-PFOS	IS	81.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C2-PFDA	IS	83.3	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C2-8:2 FTS	IS	77.7	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
d3-MeFOSAA	IS	75.6	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
d5-EtFOSAA	IS	82.0	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C2-PFUnA	IS	82.3	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C2-PFDoA	IS	84.3	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
d3-MeFOSA	IS	24.8	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
13C2-PFTeDA	IS	52.9	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
d5-EtFOSA	IS	24.5	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
d7-MeFOSE	IS	40.2	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	1
d9-EtFOSE	IS	41.5	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:39	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: OPR **PFAS Isotope Dilution Method**

Client Data

Name: AECOM
Project: CVRA

Matrix: Aqueous

Laboratory Data

Lab Sample: B22E192-BS1 Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	3.55	4.00	88.9	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFPeA	2706-90-3	3.59	4.00	89.8	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFBS	375-73-5	3.56	4.00	88.9	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
4:2 FTS	757124-72-4	3.97	4.00	99.3	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFHxA	307-24-4	3.57	4.00	89.1	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFPeS	2706-91-4	3.14	4.00	78.4	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
HFPO-DA	13252-13-6	4.19	4.00	105	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFHpA	375-85-9	3.68	4.00	92.1	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
ADONA	919005-14-4	3.61	4.00	90.2	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFHxS	355-46-4	3.21	4.00	80.3	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
6:2 FTS	27619-97-2	3.50	4.00	87.5	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFOA	335-67-1	3.71	4.00	92.7	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFHpS	375-92-8	4.59	4.00	115	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFNA	375-95-1	3.79	4.00	94.7	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFOSA	754-91-6	3.63	4.00	90.7	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFOS	1763-23-1	3.40	4.00	85.0	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
9Cl-PF3ONS	756426-58-1	3.42	4.00	85.6	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFDA	335-76-2	3.40	4.00	85.0	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
8:2 FTS	39108-34-4	4.19	4.00	105	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFNS	68259-12-1	4.09	4.00	102	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
MeFOSAA	2355-31-9	3.48	4.00	86.9	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
EtFOSAA	2991-50-6	3.23	4.00	80.7	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFUnA	2058-94-8	3.69	4.00	92.3	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFDS	335-77-3	3.17	4.00	79.3	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
11Cl-PF3OUdS	763051-92-9	3.69	4.00	92.3	50 - 150	Q	B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFDoA	307-55-1	3.44	4.00	85.9	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
MeFOSA	31506-32-8	4.17	4.00	104	50 - 150	Q	B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFTrDA	72629-94-8	3.17	4.00	79.2	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFDoS	79780-39-5	4.43	4.00	111	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
PFTeDA	376-06-7	3.90	4.00	97.6	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
EtFOSA	4151-50-2	4.96	4.00	124	50 - 150	Q	B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1

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

Client Data

Name: AECOM
Project: CVRA

Matrix: Aqueous

Laboratory Data

Lab Sample: B22E192-BS1 Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
MeFOSE	24448-09-7	3.31	4.00	82.7	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
EtFOSE	1691-99-2	4.50	4.00	113	50 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	53.4	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C3-PFPeA	IS	70.1	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C3-PFBS	IS	87.4	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C2-4:2 FTS	IS	75.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C2-PFHxA	IS	85.1	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C3-HFPO-DA	IS	94.4	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C4-PFHpA	IS	84.5	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C3-PFHxS	IS	82.7	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C2-6:2 FTS	IS	76.4	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C2-PFOA	IS	88.0	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C5-PFNA	IS	82.9	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C8-PFOSA	IS	59.1	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C8-PFOS	IS	85.7	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C2-PFDA	IS	83.5	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C2-8:2 FTS	IS	77.8	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
d3-MeFOSAA	IS	79.6	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
d5-EtFOSAA	IS	74.5	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C2-PFUnA	IS	82.1	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C2-PFDoA	IS	77.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
d3-MeFOSA	IS	26.0	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
13C2-PFTeDA	IS	43.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
d5-EtFOSA	IS	26.8	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
d7-MeFOSE	IS	38.3	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1
d9-EtFOSE	IS	40.8	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 22:49	1

Sample ID: Decon water (PFAS Free)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Location: Filtered by Horizon
Matrix: Aqueous
Date Collected: 10-May-22 10:20

Laboratory Data

Lab Sample: 2205141-11
Date Received: 17-May-22 09:04
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.997	0.997	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFPeA	2706-90-3	<0.745	0.745	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFBS	375-73-5	<0.894	0.894	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
4:2 FTS	757124-72-4	<0.938	0.938	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFHxA	307-24-4	<0.805	0.805	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFPeS	2706-91-4	<0.810	0.810	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
HFPO-DA	13252-13-6	<1.55	1.55	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFHpA	375-85-9	<0.923	0.923	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
ADONA	919005-14-4	<0.632	0.632	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFHxS	355-46-4	<1.02	1.02	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
6:2 FTS	27619-97-2	<1.11	1.11	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFOA	335-67-1	<0.943	0.943	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFHpS	375-92-8	<0.587	0.587	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFNA	375-95-1	<0.745	0.745	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFOSA	754-91-6	1.37	1.08	1.97	J, Q	B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFOS	1763-23-1	<1.12	1.12	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
9Cl-PF3ONS	756426-58-1	<1.05	1.05	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFDA	335-76-2	<0.933	0.933	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
8:2 FTS	39108-34-4	<1.12	1.12	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFNS	68259-12-1	<1.14	1.14	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
MeFOSAA	2355-31-9	<0.938	0.938	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
EtFOSAA	2991-50-6	<1.03	1.03	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFUnA	2058-94-8	<0.745	0.745	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFDS	335-77-3	<0.750	0.750	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
11Cl-PF3OUdS	763051-92-9	<0.977	0.977	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFDoA	307-55-1	<0.963	0.963	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
MeFOSA	31506-32-8	<2.21	2.21	2.47		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFTrDA	72629-94-8	<0.647	0.647	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFDoS	79780-39-5	<1.40	1.40	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
PFTeDA	376-06-7	<0.805	0.805	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
EtFOSA	4151-50-2	<2.30	2.30	2.47		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
MeFOSE	24448-09-7	<1.97	1.97	2.47		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
EtFOSE	1691-99-2	<1.55	1.55	1.97		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	52.6	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C3-PFPeA	IS	80.9	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C3-PFBS	IS	94.4	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1

Sample ID: Decon water (PFAS Free)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Location: Filtered by Horizon

Matrix: Aqueous
Date Collected: 10-May-22 10:20

Laboratory Data

Lab Sample: 2205141-11
Date Received: 17-May-22 09:04

Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	85.9	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C2-PFHxA	IS	89.4	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C3-HFPO-DA	IS	87.0	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C4-PFHpA	IS	83.5	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C3-PFHxS	IS	82.6	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C2-6:2 FTS	IS	81.4	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C2-PFOA	IS	81.9	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C5-PFNA	IS	76.9	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C8-PFOSA	IS	77.8	10 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C8-PFOS	IS	79.9	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C2-PFDA	IS	83.6	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C2-8:2 FTS	IS	77.5	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
d3-MeFOSAA	IS	84.4	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
d5-EtFOSAA	IS	84.4	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C2-PFUnA	IS	81.6	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C2-PFDoA	IS	79.1	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
d3-MeFOSA	IS	33.9	10 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
13C2-PFTeDA	IS	73.0	25 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
d5-EtFOSA	IS	29.5	10 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
d7-MeFOSE	IS	36.1	10 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	1
d9-EtFOSE	IS	39.3	10 - 150		B22E192	27-May-22	0.253 L	01-Jun-22 23:10	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: Decon water (Tap)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 11-May-22 10:15

Laboratory Data

Lab Sample: 2205141-12
Date Received: 17-May-22 09:04
Column: BEH C18

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		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFPeA	2706-90-3	<0.756	0.756	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFBS	375-73-5	<0.906	0.906	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
4:2 FTS	757124-72-4	<0.951	0.951	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFHxA	307-24-4	<0.816	0.816	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFPeS	2706-91-4	<0.821	0.821	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
HFPO-DA	13252-13-6	<1.57	1.57	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFHpA	375-85-9	<0.936	0.936	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
ADONA	919005-14-4	<0.641	0.641	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFHxS	355-46-4	<1.03	1.03	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
6:2 FTS	27619-97-2	<1.13	1.13	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFOA	335-67-1	<0.956	0.956	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFHpS	375-92-8	<0.596	0.596	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFNA	375-95-1	<0.756	0.756	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFOSA	754-91-6	16.1	1.09	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFOS	1763-23-1	<1.13	1.13	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
9Cl-PF3ONS	756426-58-1	<1.07	1.07	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFDA	335-76-2	<0.946	0.946	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
8:2 FTS	39108-34-4	<1.14	1.14	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFNS	68259-12-1	<1.16	1.16	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
MeFOSAA	2355-31-9	<0.951	0.951	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
EtFOSAA	2991-50-6	<1.04	1.04	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFUnA	2058-94-8	<0.756	0.756	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFDS	335-77-3	<0.761	0.761	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
11Cl-PF3OUdS	763051-92-9	<0.991	0.991	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFDoA	307-55-1	<0.976	0.976	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
MeFOSA	31506-32-8	<2.24	2.24	2.50		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFTrDA	72629-94-8	<0.656	0.656	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFDoS	79780-39-5	<1.42	1.42	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
PFTeDA	376-06-7	<0.816	0.816	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
EtFOSA	4151-50-2	<2.33	2.33	2.50		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
MeFOSE	24448-09-7	<2.00	2.00	2.50		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
EtFOSE	1691-99-2	<1.57	1.57	2.00		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	40.6	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C3-PFPeA	IS	64.6	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C3-PFBS	IS	95.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1

Sample ID: Decon water (Tap)

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 11-May-22 10:15

Laboratory Data

Lab Sample: 2205141-12
Date Received: 17-May-22 09:04
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	81.5	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C2-PFHxA	IS	80.8	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C3-HFPO-DA	IS	79.9	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C4-PFHpA	IS	83.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C3-PFHxS	IS	82.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C2-6:2 FTS	IS	96.9	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C2-PFOA	IS	75.9	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C5-PFNA	IS	76.1	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C8-PFOSA	IS	66.0	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C8-PFOS	IS	82.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C2-PFDA	IS	85.3	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C2-8:2 FTS	IS	80.5	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
d3-MeFOSAA	IS	83.5	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
d5-EtFOSAA	IS	81.2	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C2-PFUnA	IS	77.0	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C2-PFDoA	IS	80.8	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
d3-MeFOSA	IS	17.4	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
13C2-PFTeDA	IS	67.9	25 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
d5-EtFOSA	IS	15.6	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
d7-MeFOSE	IS	39.1	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	1
d9-EtFOSE	IS	46.6	10 - 150		B22E192	27-May-22	0.250 L	01-Jun-22 23:52	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: EB-051122

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 11-May-22 16:15

Laboratory Data

Lab Sample: 2205141-13
Date Received: 17-May-22 09:04
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.977	0.977	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFPeA	2706-90-3	<0.731	0.731	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFBS	375-73-5	<0.876	0.876	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
4:2 FTS	757124-72-4	<0.919	0.919	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFHxA	307-24-4	<0.789	0.789	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFPeS	2706-91-4	<0.793	0.793	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
HFPO-DA	13252-13-6	<1.51	1.51	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFHpA	375-85-9	<0.905	0.905	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
ADONA	919005-14-4	<0.619	0.619	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFHxS	355-46-4	<0.997	0.997	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
6:2 FTS	27619-97-2	<1.09	1.09	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFOA	335-67-1	<0.924	0.924	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFHpS	375-92-8	<0.576	0.576	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFNA	375-95-1	<0.731	0.731	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFOSA	754-91-6	1.64	1.05	1.94	J	B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFOS	1763-23-1	<1.09	1.09	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
9Cl-PF3ONS	756426-58-1	<1.03	1.03	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFDA	335-76-2	<0.914	0.914	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
8:2 FTS	39108-34-4	<1.10	1.10	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFNS	68259-12-1	<1.12	1.12	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
MeFOSAA	2355-31-9	<0.919	0.919	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
EtFOSAA	2991-50-6	<1.01	1.01	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFUnA	2058-94-8	<0.731	0.731	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFDS	335-77-3	<0.735	0.735	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
11Cl-PF3OUdS	763051-92-9	<0.958	0.958	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFDoA	307-55-1	<0.943	0.943	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
MeFOSA	31506-32-8	<2.17	2.17	2.42		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFTrDA	72629-94-8	<0.634	0.634	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFDoS	79780-39-5	<1.37	1.37	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
PFTeDA	376-06-7	<0.789	0.789	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
EtFOSA	4151-50-2	<2.25	2.25	2.42		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
MeFOSE	24448-09-7	<1.94	1.94	2.42		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
EtFOSE	1691-99-2	<1.52	1.52	1.94		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	54.1	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C3-PFPeA	IS	78.3	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C3-PFBS	IS	88.0	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1

Sample ID: EB-051122

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 11-May-22 16:15

Laboratory Data

Lab Sample: 2205141-13
Date Received: 17-May-22 09:04
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	79.7	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C2-PFHxA	IS	86.5	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C3-HFPO-DA	IS	96.7	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C4-PFHpA	IS	84.6	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C3-PFHxS	IS	80.8	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C2-6:2 FTS	IS	87.2	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C2-PFOA	IS	84.9	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C5-PFNA	IS	81.1	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C8-PFOSA	IS	68.3	10 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C8-PFOS	IS	83.1	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C2-PFDA	IS	75.6	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C2-8:2 FTS	IS	77.9	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
d3-MeFOSAA	IS	83.9	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
d5-EtFOSAA	IS	85.5	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C2-PFUnA	IS	77.3	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C2-PFDoA	IS	81.4	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
d3-MeFOSA	IS	28.0	10 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
13C2-PFTeDA	IS	64.8	25 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
d5-EtFOSA	IS	28.0	10 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
d7-MeFOSE	IS	44.6	10 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	1
d9-EtFOSE	IS	48.8	10 - 150		B22E192	27-May-22	0.258 L	02-Jun-22 00:03	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: Well #4 **PFAS Isotope Dilution Method**

Client Data

Name: AECOM
Project: CVRA
Location: Well #4 hydrant
Matrix: Aqueous
Date Collected: 12-May-22 11:30

Laboratory Data

Lab Sample: 2205141-14
Date Received: 17-May-22 09:04
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.00	1.00	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFPeA	2706-90-3	<0.749	0.749	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFBS	375-73-5	<0.898	0.898	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
4:2 FTS	757124-72-4	<0.943	0.943	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFHxA	307-24-4	<0.809	0.809	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFPeS	2706-91-4	<0.814	0.814	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
HFPO-DA	13252-13-6	<1.55	1.55	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFHpA	375-85-9	<0.928	0.928	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
ADONA	919005-14-4	<0.635	0.635	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFHxS	355-46-4	<1.02	1.02	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
6:2 FTS	27619-97-2	<1.12	1.12	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFOA	335-67-1	<0.948	0.948	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFHpS	375-92-8	<0.590	0.590	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFNA	375-95-1	<0.749	0.749	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFOSA	754-91-6	4.87	1.08	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFOS	1763-23-1	<1.12	1.12	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
9Cl-PF3ONS	756426-58-1	<1.06	1.06	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFDA	335-76-2	<0.938	0.938	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
8:2 FTS	39108-34-4	<1.13	1.13	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFNS	68259-12-1	<1.15	1.15	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
MeFOSAA	2355-31-9	<0.943	0.943	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
EtFOSAA	2991-50-6	<1.03	1.03	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFUnA	2058-94-8	<0.749	0.749	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFDS	335-77-3	<0.754	0.754	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
11Cl-PF3OUdS	763051-92-9	<0.982	0.982	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFDoA	307-55-1	<0.968	0.968	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
MeFOSA	31506-32-8	<2.22	2.22	2.48		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFTrDA	72629-94-8	<0.650	0.650	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFDoS	79780-39-5	<1.40	1.40	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
PFTeDA	376-06-7	<0.809	0.809	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
EtFOSA	4151-50-2	<2.31	2.31	2.48		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
MeFOSE	24448-09-7	<1.98	1.98	2.48		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
EtFOSE	1691-99-2	<1.56	1.56	1.98		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	79.3	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C3-PFPeA	IS	83.7	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C3-PFBS	IS	99.7	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1

Sample ID: Well #4

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Location: Well #4 hydrant

Matrix: Aqueous
Date Collected: 12-May-22 11:30

Laboratory Data

Lab Sample: 2205141-14
Date Received: 17-May-22 09:04

Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	89.6	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C2-PFHxA	IS	90.6	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C3-HFPO-DA	IS	74.5	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C4-PFHpA	IS	88.8	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C3-PFHxS	IS	95.6	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C2-6:2 FTS	IS	88.9	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C2-PFOA	IS	92.0	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C5-PFNA	IS	83.9	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C8-PFOSA	IS	76.5	10 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C8-PFOS	IS	92.5	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C2-PFDA	IS	87.5	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C2-8:2 FTS	IS	81.1	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
d3-MeFOSAA	IS	87.0	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
d5-EtFOSAA	IS	89.6	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C2-PFUnA	IS	86.3	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C2-PFDoA	IS	87.4	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
d3-MeFOSA	IS	10.1	10 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
13C2-PFTeDA	IS	81.0	25 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
d5-EtFOSA	IS	8.60	10 - 150	H	B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
d7-MeFOSE	IS	48.3	10 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	1
d9-EtFOSE	IS	51.6	10 - 150		B22E192	27-May-22	0.252 L	02-Jun-22 21:33	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: FB-051322 **PFAS Isotope Dilution Method**

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 13-May-22 14:00

Laboratory Data

Lab Sample: 2205141-15
Date Received: 17-May-22 09:04
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.964	0.964	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFPeA	2706-90-3	<0.720	0.720	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFBS	375-73-5	<0.863	0.863	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
4:2 FTS	757124-72-4	<0.906	0.906	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFHxA	307-24-4	<0.778	0.778	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFPeS	2706-91-4	<0.782	0.782	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
HFPO-DA	13252-13-6	<1.49	1.49	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFHpA	375-85-9	<0.892	0.892	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
ADONA	919005-14-4	<0.611	0.611	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFHxS	355-46-4	<0.983	0.983	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
6:2 FTS	27619-97-2	<1.07	1.07	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFOA	335-67-1	<0.911	0.911	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFHpS	375-92-8	<0.568	0.568	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFNA	375-95-1	<0.720	0.720	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFOSA	754-91-6	<1.04	1.04	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFOS	1763-23-1	<1.08	1.08	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
9Cl-PF3ONS	756426-58-1	<1.02	1.02	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFDA	335-76-2	<0.902	0.902	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
8:2 FTS	39108-34-4	<1.08	1.08	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFNS	68259-12-1	<1.10	1.10	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
MeFOSAA	2355-31-9	<0.906	0.906	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
EtFOSAA	2991-50-6	<0.992	0.992	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFUnA	2058-94-8	<0.720	0.720	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFDS	335-77-3	<0.725	0.725	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
11Cl-PF3OUdS	763051-92-9	<0.944	0.944	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFDoA	307-55-1	<0.930	0.930	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
MeFOSA	31506-32-8	<2.14	2.14	2.39		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFTrDA	72629-94-8	<0.625	0.625	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFDoS	79780-39-5	<1.35	1.35	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
PFTeDA	376-06-7	<0.778	0.778	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
EtFOSA	4151-50-2	<2.22	2.22	2.39		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
MeFOSE	24448-09-7	<1.91	1.91	2.39		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
EtFOSE	1691-99-2	<1.50	1.50	1.91		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	88.5	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C3-PFPeA	IS	77.4	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C3-PFBS	IS	96.5	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1

Sample ID: FB-051322

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 13-May-22 14:00

Laboratory Data

Lab Sample: 2205141-15
Date Received: 17-May-22 09:04
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	83.3	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C2-PFHxA	IS	93.4	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C3-HFPO-DA	IS	101	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C4-PFHpA	IS	86.2	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C3-PFHxS	IS	86.7	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C2-6:2 FTS	IS	75.9	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C2-PFOA	IS	86.2	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C5-PFNA	IS	78.0	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C8-PFOSA	IS	66.5	10 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C8-PFOS	IS	80.4	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C2-PFDA	IS	87.4	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C2-8:2 FTS	IS	76.1	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
d3-MeFOSAA	IS	81.7	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
d5-EtFOSAA	IS	83.1	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C2-PFUnA	IS	82.3	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C2-PFDoA	IS	79.6	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
d3-MeFOSA	IS	26.9	10 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
13C2-PFTeDA	IS	68.7	25 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
d5-EtFOSA	IS	28.8	10 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
d7-MeFOSE	IS	43.5	10 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	1
d9-EtFOSE	IS	45.5	10 - 150		B22E192	27-May-22	0.262 L	02-Jun-22 00:24	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
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	2211390
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
Pennsylvania Department of Environmental Protection	018
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 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	PFAS Isotope Dilution
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	PFAS Isotope Dilution
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
Perfluorooctanesulonate (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	PFAS Isotope Dilution
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	PFAS Isotope Dilution
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

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 2205141 Temp: 1.8 °C
Storage ID: R-3, UR-2 Storage Secured: Yes ☑ No ☐

Project ID: CVRA PO#: 6000069304 Sampler: Marcus Hopkins (name)

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

Marcus Hopkins — 5/16/22 — 1600 — Marissa Sparks — 05/17/22 — 0904
Relinquished by (printed name and signature) — Date — Time — Received by (printed name and signature) — Date — Time

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

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN:

Method of Shipment:

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/ Sample Description	Container(s) Quantity	Type	Matrix	PFAS by Isotope Dilution: PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List: 14 or 18 (Circle One)	EPA Draft List of 24	OTHER: WI-331ST Please attach analyte list	EPA Method 537 (DW only): PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List of 14	537.1 List of 18	Comments
AMW-01 (80-80.5)	5/9/22	1500		1	P	SO					X					
AMW-04 (1-2)	5/11/22	1310		1	P	SO					X					
AMW-04 (69-70)	5/11/22	1450		1	P	SO					X					low Quantity
AMW-05 (1-2)	5/12/22	0945		1	P	SO					X					
ASB-01 (1-2)	5/12/22	1015		1	P	SO					X					
AMW-05 (65-67)	5/12/22	1120		1	P	SO					X					
AMW-03 (1-2)	5/13/22	0745		1	P	SO					X					
AMW-03 (35-37)	5/13/22	0905		1	P	SO					X					
AMW-03 (68-70)	5/13/22	1230		1	P	SO					X					
AMW-03 (68-70) Dup	5/13/22	1230		1	P	SO					X					

Special Instructions/Comment

SEND DOCUMENTATION AND RESULTS TO:
Name: Andrew Mott
Company:
Address:
City: State: Zip:
Phone:
Email:

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

Bottle Preservation Type: 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

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 2205141 Temp: 1.8 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☐ No ☐

Project ID: CURA PO#: 60669304 Sampler: Marcus Hopkins (name)

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

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Marcus Hopkins	5/10/22	1600	Marissa Sparks	05/17/22	0904

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

ATTN: _____

Method of Shipment: _____

Tracking No.: _____

Add Analysis(es) Requested

Sample ID	Date	Time	Location/ Sample Description	Container(s) Quantity	Type	Matrix	PFAS by Isotope Dilution: PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List: 14 or 18 (Circle One)	EPA Draft List of 24	OTHER: WI-33 list (Please attach analyte list)	EPA Method 537 (DW only): PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List of 14	537.1 List of 18	Comments
Decon water (PFAS Free)	5/11/22	1020	"Filtered" by Horizon	2	P	AQ					X					
Decon water (TAP)	5/11/22	1015		2	P	AQ					X					
EB-051122	5/11/22	1615		2	P	AQ					X					Split spoon sampler
Well #4	5/12/22	1130	Well #4 hydrant	2	P	AQ					X					
FB-051322	5/13/22	1400		2	P	AQ					X					

Special Instructions/Comment

SEND DOCUMENTATION AND RESULTS TO:
Name: Andrew Mott
Company: _____
Address: _____
City: _____ State: ___ Zip: _____
Phone: _____
Email: _____

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

Bottle Preservation Type:
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 _____

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2205141 TAT Std

Samples Arrival:	**Date/Time** 05/17/22 0904		**Initials:** MWS		**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: 1.9 (uncorrected)			**Probe used: Y / N**		**Thermometer ID:** IR-3		
Temp °C: 1.8 (corrected)							

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill — Trk # 2731 8804 6059	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / Client / Retain / Return / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 05/17/22 16:00	**Initials:** KM	**Location:** WR-2, R-13 **Shelf/Rack:** A-2, F-6, A-2
COC Anomaly/Sample Acceptance Form completed?	✓	.	

Comments:

CoC/Label Reconciliation Report WO# 2205141

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2205141-01	A AMW-01 (80-80.5)		09-May-22 15:00	HDPE Jar, 6 oz	Solid	
2205141-02	A AMW-04 (1-2)		11-May-22 13:10	HDPE Jar, 6 oz	Solid	
2205141-03	A AMW-04 (69-70)		11-May-22 14:50	HDPE Jar, 6 oz	Solid	
2205141-04	A AMW-05 (1-2)		12-May-22 09:45	HDPE Jar, 6 oz	Solid	
2205141-05	A ASB-01 (1-2)		12-May-22 10:15	HDPE Jar, 6 oz	Solid	
2205141-06	A AMW-05 (65-67)		12-May-22 11:20	HDPE Jar, 6 oz	Solid	
2205141-07	A AMW-03 (1-2)		13-May-22 07:45	HDPE Jar, 6 oz	Solid	
2205141-08	A AMW-03 (35-37)		13-May-22 09:05	HDPE Jar, 6 oz	Solid	
2205141-09	A AMW-03 (68-70)		13-May-22 12:30	HDPE Jar, 6 oz	Solid	
2205141-10	A AMW-03 (68-70) Dup		13-May-22 12:30	HDPE Jar, 6 oz	Solid	
2205141-11	A Decon water (PFAS Free)	Filtered by Horizon	10-May-22 10:20	HDPE Bottle, 250 mL	Aqueous	
2205141-11	B Decon water (PFAS Free)	Filtered by Horizon	10-May-22 10:20	HDPE Bottle, 250 mL	Aqueous	
2205141-12	A Decon water (Tap)		11-May-22 10:15	HDPE Bottle, 250 mL	Aqueous	
2205141-12	B Decon water (Tap)		11-May-22 10:15	HDPE Bottle, 250 mL	Aqueous	
2205141-13	A EB-051122		11-May-22 16:15	HDPE Bottle, 250 mL	Aqueous	
2205141-13	B EB-051122		11-May-22 16:15	HDPE Bottle, 250 mL	Aqueous	
2205141-14	A Well #4	Well #4 hydrant	12-May-22 11:30	HDPE Bottle, 250 mL	Aqueous	
2205141-14	B Well #4	Well #4 hydrant	12-May-22 11:30	HDPE Bottle, 250 mL	Aqueous	
2205141-15	A FB-051322		13-May-22 14:00	HDPE Bottle, 250 mL	Aqueous	
2205141-15	B FB-051322		13-May-22 14:00	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: A) Sample label ~~time~~ date: 05/12/22 (KA 05/18/22)

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 (None) Other

Verifed by/Date: KA 05/18/22

Vista Analytical Laboratory

ANOMALY FORM

Vista Work Order 2205141

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.
VA 05/18/22	☑	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: _____

Vista Client Manager: _____

Resolution:

July 20, 2022

Vista Work Order No. 2206072

Mr. Andrew Mott
AECOM
558 North Main Street
Oshkosh, WI 54901

Dear Mr. Mott,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on June 09, 2022 under your Project Name 'CVRA'.

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. 2206072
Case Narrative

Sample Condition on Receipt:

Ten 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

Samples "AMW-01", "AMW-02" and "AMW-03" contained particulate and were 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.

The sample result for EtFOSA could not be reported in sample "AMW-02" due to low internal standard recovery. There was no additional volume to perform a re-extraction.

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 Ongoing Precision and Recovery (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 outside the acceptance criteria are listed in the table below.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
2206072-04	AMW-01	PFAS Isotope Dilution Method	d3-MeFOSA	H	7.00
2206072-04	AMW-01	PFAS Isotope Dilution Method	d5-EtFOSA	H	5.00
2206072-05	AMW-02	PFAS Isotope Dilution Method	13C3-PFBA	H	19.3
2206072-05	AMW-02	PFAS Isotope Dilution Method	d3-MeFOSA	H	1.20
2206072-05	AMW-02	PFAS Isotope Dilution Method	13C2-PFTeDA	H	10.1
2206072-05	AMW-02	PFAS Isotope Dilution Method	d7-MeFOSE	H	9.10
2206072-05	AMW-02	PFAS Isotope Dilution Method	d9-EtFOSE	H	5.60
2206072-09	AMW-03	PFAS Isotope Dilution Method	13C2-6:2 FTS	H	204

H = Recovery was outside laboratory acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2206072-01	MW-55A	07-Jun-22 09:40	09-Jun-22 09:35	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2206072-02	MW-51A	07-Jun-22 11:10	09-Jun-22 09:35	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2206072-03	MW-51A Dup	07-Jun-22 11:10	09-Jun-22 09:35	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2206072-04	AMW-01	07-Jun-22 13:55	09-Jun-22 09:35	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2206072-05	AMW-02	07-Jun-22 15:30	09-Jun-22 09:35	HDPE Bottle, 250 mL
2206072-06	EB-060722	07-Jun-22 12:40	09-Jun-22 09:35	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2206072-07	AMW-05	07-Jun-22 17:30	09-Jun-22 09:35	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2206072-08	AMW-04	08-Jun-22 09:35	09-Jun-22 09:35	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2206072-09	AMW-03	08-Jun-22 11:10	09-Jun-22 09:35	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
2206072-10	AB-060822	08-Jun-22 11:30	09-Jun-22 09:35	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous

Laboratory Data

Lab Sample: B22F069-BLK1
Column: BEH C18

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		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFPeA	2706-90-3	<0.755	0.755	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFBS	375-73-5	<0.905	0.905	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
4:2 FTS	757124-72-4	<0.950	0.950	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFHxA	307-24-4	<0.815	0.815	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFPeS	2706-91-4	<0.820	0.820	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
HFPO-DA	13252-13-6	<1.57	1.57	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFHpA	375-85-9	<0.935	0.935	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
ADONA	919005-14-4	<0.640	0.640	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFHxS	355-46-4	<1.03	1.03	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
6:2 FTS	27619-97-2	<1.13	1.13	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFOA	335-67-1	<0.955	0.955	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFHpS	375-92-8	<0.595	0.595	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFNA	375-95-1	<0.755	0.755	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFOSA	754-91-6	<1.09	1.09	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFOS	1763-23-1	<1.13	1.13	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
9Cl-PF3ONS	756426-58-1	<1.07	1.07	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFDA	335-76-2	<0.945	0.945	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
8:2 FTS	39108-34-4	<1.14	1.14	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFNS	68259-12-1	<1.16	1.16	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
MeFOSAA	2355-31-9	<0.950	0.950	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
EtFOSAA	2991-50-6	<1.04	1.04	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFUnA	2058-94-8	<0.755	0.755	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFDS	335-77-3	<0.760	0.760	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
11Cl-PF3OUdS	763051-92-9	<0.990	0.990	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFDoA	307-55-1	<0.975	0.975	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
MeFOSA	31506-32-8	<2.24	2.24	2.50		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFTrDA	72629-94-8	<0.655	0.655	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFDoS	79780-39-5	<1.42	1.42	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
PFTeDA	376-06-7	<0.815	0.815	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
EtFOSA	4151-50-2	<2.33	2.33	2.50		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
MeFOSE	24448-09-7	<2.00	2.00	2.50		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
EtFOSE	1691-99-2	<1.57	1.57	2.00		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	83.3	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C3-PFPeA	IS	81.2	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C3-PFBS	IS	80.2	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C2-4:2 FTS	IS	91.2	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous

Laboratory Data

Lab Sample: B22F069-BLK1
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	IS	86.7	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C3-HFPO-DA	IS	80.3	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C4-PFHpA	IS	89.1	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C3-PFHxS	IS	88.5	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C2-6:2 FTS	IS	80.0	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C2-PFOA	IS	86.1	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C5-PFNA	IS	83.4	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C8-PFOSA	IS	34.6	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C8-PFOS	IS	81.1	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C2-PFDA	IS	76.5	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C2-8:2 FTS	IS	89.3	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
d3-MeFOSAA	IS	72.1	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
d5-EtFOSAA	IS	58.9	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C2-PFUnA	IS	68.0	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C2-PFDoA	IS	58.1	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
d3-MeFOSA	IS	15.1	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
13C2-PFTeDA	IS	59.1	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
d5-EtFOSA	IS	11.2	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
d7-MeFOSE	IS	25.1	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	1
d9-EtFOSE	IS	23.4	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:15	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: OPR **PFAS Isotope Dilution Method**

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous

Laboratory Data

Lab Sample: B22F069-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	4.03	4.00	101	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFPeA	2706-90-3	3.80	4.00	95.0	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFBS	375-73-5	3.78	4.00	94.5	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
4:2 FTS	757124-72-4	3.68	4.00	92.1	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFHxA	307-24-4	4.09	4.00	102	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFPeS	2706-91-4	3.55	4.00	88.7	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
HFPO-DA	13252-13-6	4.45	4.00	111	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFHpA	375-85-9	4.68	4.00	117	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
ADONA	919005-14-4	3.75	4.00	93.8	50 - 150	Q	B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFHxS	355-46-4	3.79	4.00	94.9	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
6:2 FTS	27619-97-2	4.13	4.00	103	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFOA	335-67-1	3.78	4.00	94.5	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFHpS	375-92-8	4.75	4.00	119	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFNA	375-95-1	4.28	4.00	107	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFOSA	754-91-6	4.10	4.00	103	50 - 150	Q	B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFOS	1763-23-1	2.63	4.00	65.8	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
9Cl-PF3ONS	756426-58-1	4.18	4.00	105	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFDA	335-76-2	4.15	4.00	104	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
8:2 FTS	39108-34-4	3.98	4.00	99.4	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFNS	68259-12-1	3.16	4.00	79.0	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
MeFOSAA	2355-31-9	3.27	4.00	81.8	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
EtFOSAA	2991-50-6	4.25	4.00	106	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFUnA	2058-94-8	3.73	4.00	93.3	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFDS	335-77-3	2.53	4.00	63.2	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
11Cl-PF3OUdS	763051-92-9	3.89	4.00	97.3	50 - 150	Q	B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFDoA	307-55-1	4.06	4.00	102	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
MeFOSA	31506-32-8	4.60	4.00	115	50 - 150	Q	B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFTrDA	72629-94-8	4.79	4.00	120	50 - 150	Q	B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFDoS	79780-39-5	3.77	4.00	94.2	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
PFTeDA	376-06-7	3.97	4.00	99.2	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
EtFOSA	4151-50-2	3.41	4.00	85.3	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1

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

Client Data

Name: AECOM
Project: CVRA

Matrix: Aqueous

Laboratory Data

Lab Sample: B22F069-BS1 Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
MeFOSE	24448-09-7	3.38	4.00	84.5	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
EtFOSE	1691-99-2	2.53	4.00	63.2	50 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	84.4	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C3-PFPeA	IS	85.6	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C3-PFBS	IS	84.8	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C2-4:2 FTS	IS	97.0	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C2-PFHxA	IS	89.1	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C3-HFPO-DA	IS	87.0	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C4-PFHpA	IS	90.7	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C3-PFHxS	IS	83.2	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C2-6:2 FTS	IS	78.7	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C2-PFOA	IS	82.2	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C5-PFNA	IS	84.7	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C8-PFOSA	IS	42.2	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C8-PFOS	IS	91.7	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C2-PFDA	IS	80.8	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C2-8:2 FTS	IS	78.2	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
d3-MeFOSAA	IS	71.7	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
d5-EtFOSAA	IS	62.1	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C2-PFUnA	IS	71.8	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C2-PFDoA	IS	64.2	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
d3-MeFOSA	IS	16.9	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
13C2-PFTeDA	IS	67.4	25 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
d5-EtFOSA	IS	15.0	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
d7-MeFOSE	IS	31.5	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1
d9-EtFOSE	IS	27.4	10 - 150		B22F069	23-Jun-22	0.250 L	27-Jun-22 17:26	1

Sample ID: MW-55A

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 09:40

Laboratory Data

Lab Sample: 2206072-01
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	5.39	1.02	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFPeA	2706-90-3	5.94	0.765	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFBS	375-73-5	12.6	0.917	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
4:2 FTS	757124-72-4	<0.963	0.963	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFHxA	307-24-4	2.14	0.826	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFPeS	2706-91-4	1.89	0.831	2.03	J	B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
HFPO-DA	13252-13-6	<1.59	1.59	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFHpA	375-85-9	<0.947	0.947	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
ADONA	919005-14-4	<0.648	0.648	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFHxS	355-46-4	10.5	1.04	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
6:2 FTS	27619-97-2	<1.14	1.14	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFOA	335-67-1	<0.968	0.968	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFHpS	375-92-8	1.64	0.603	2.03	J	B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFNA	375-95-1	<0.765	0.765	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFOSA	754-91-6	3.95	1.10	2.03	Q	B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFOS	1763-23-1	11.9	1.14	2.03	Q	B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
9Cl-PF3ONS	756426-58-1	<1.08	1.08	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFDA	335-76-2	<0.957	0.957	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
8:2 FTS	39108-34-4	<1.15	1.15	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFNS	68259-12-1	<1.17	1.17	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
MeFOSAA	2355-31-9	<0.963	0.963	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
EtFOSAA	2991-50-6	<1.05	1.05	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFUnA	2058-94-8	<0.765	0.765	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFDS	335-77-3	<0.770	0.770	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
11Cl-PF3OUdS	763051-92-9	<1.00	1.00	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFDoA	307-55-1	<0.988	0.988	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
MeFOSA	31506-32-8	<2.27	2.27	2.53		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFTrDA	72629-94-8	<0.664	0.664	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFDoS	79780-39-5	<1.43	1.43	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
PFTeDA	376-06-7	<0.826	0.826	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
EtFOSA	4151-50-2	<2.36	2.36	2.53		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
MeFOSE	24448-09-7	<2.03	2.03	2.53		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
EtFOSE	1691-99-2	<1.59	1.59	2.03		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	82.3	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C3-PFPeA	IS	87.1	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C3-PFBS	IS	79.7	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1

Sample ID: MW-55A

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 09:40

Laboratory Data

Lab Sample: 2206072-01
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	99.5	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C2-PFHxA	IS	87.2	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C3-HFPO-DA	IS	85.6	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C4-PFHpA	IS	85.3	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C3-PFHxS	IS	86.8	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C2-6:2 FTS	IS	77.2	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C2-PFOA	IS	80.0	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C5-PFNA	IS	85.2	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C8-PFOSA	IS	59.1	10 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C8-PFOS	IS	101	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C2-PFDA	IS	82.4	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C2-8:2 FTS	IS	90.6	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
d3-MeFOSAA	IS	88.1	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
d5-EtFOSAA	IS	78.1	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C2-PFUnA	IS	78.3	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C2-PFDoA	IS	77.5	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
d3-MeFOSA	IS	15.8	10 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
13C2-PFTeDA	IS	83.6	25 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
d5-EtFOSA	IS	15.1	10 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
d7-MeFOSE	IS	36.9	10 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	1
d9-EtFOSE	IS	36.1	10 - 150		B22F069	23-Jun-22	0.247 L	27-Jun-22 18:39	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: MW-51A

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 11:10

Laboratory Data

Lab Sample: 2206072-02
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	55.7	1.00	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFPeA	2706-90-3	14.0	0.747	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFBS	375-73-5	21.9	0.896	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
4:2 FTS	757124-72-4	<0.941	0.941	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFHxA	307-24-4	14.1	0.807	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFPeS	2706-91-4	2.22	0.812	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
HFPO-DA	13252-13-6	<1.55	1.55	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFHpA	375-85-9	4.51	0.926	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
ADONA	919005-14-4	<0.634	0.634	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFHxS	355-46-4	6.48	1.02	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
6:2 FTS	27619-97-2	<1.11	1.11	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFOA	335-67-1	14.0	0.945	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFHpS	375-92-8	<0.589	0.589	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFNA	375-95-1	<0.747	0.747	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFOSA	754-91-6	2.19	1.08	1.98	Q	B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFOS	1763-23-1	2.14	1.12	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
9Cl-PF3ONS	756426-58-1	<1.05	1.05	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFDA	335-76-2	<0.936	0.936	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
8:2 FTS	39108-34-4	<1.12	1.12	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFNS	68259-12-1	<1.14	1.14	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
MeFOSAA	2355-31-9	<0.941	0.941	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
EtFOSAA	2991-50-6	<1.03	1.03	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFUnA	2058-94-8	<0.747	0.747	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFDS	335-77-3	<0.752	0.752	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
11Cl-PF3OUdS	763051-92-9	<0.980	0.980	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFDoA	307-55-1	<0.965	0.965	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
MeFOSA	31506-32-8	<2.22	2.22	2.48		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFTrDA	72629-94-8	<0.648	0.648	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFDoS	79780-39-5	<1.40	1.40	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
PFTeDA	376-06-7	<0.807	0.807	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
EtFOSA	4151-50-2	<2.30	2.30	2.48		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
MeFOSE	24448-09-7	<1.98	1.98	2.48		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
EtFOSE	1691-99-2	<1.55	1.55	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	83.2	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C3-PFPeA	IS	86.7	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C3-PFBS	IS	84.7	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1

Sample ID: MW-51A **PFAS Isotope Dilution Method**

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 11:10

Laboratory Data

Lab Sample: 2206072-02
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	89.0	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C2-PFHxA	IS	84.1	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C3-HFPO-DA	IS	73.9	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C4-PFHpA	IS	87.3	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C3-PFHxS	IS	81.2	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C2-6:2 FTS	IS	85.0	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C2-PFOA	IS	82.3	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C5-PFNA	IS	83.8	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C8-PFOSA	IS	54.3	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C8-PFOS	IS	91.1	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C2-PFDA	IS	84.4	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C2-8:2 FTS	IS	88.2	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
d3-MeFOSAA	IS	82.5	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
d5-EtFOSAA	IS	80.2	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C2-PFUnA	IS	78.2	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C2-PFDoA	IS	82.9	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
d3-MeFOSA	IS	23.6	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
13C2-PFTeDA	IS	80.4	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
d5-EtFOSA	IS	20.1	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
d7-MeFOSE	IS	42.1	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	1
d9-EtFOSE	IS	44.3	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 18:50	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: MW-51A Dup

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 11:10

Laboratory Data

Lab Sample: 2206072-03
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	57.1	1.00	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFPeA	2706-90-3	14.2	0.747	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFBS	375-73-5	21.6	0.896	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
4:2 FTS	757124-72-4	<0.940	0.940	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFHxA	307-24-4	14.3	0.807	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFPeS	2706-91-4	2.00	0.812	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
HFPO-DA	13252-13-6	<1.55	1.55	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFHpA	375-85-9	3.78	0.926	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
ADONA	919005-14-4	<0.634	0.634	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFHxS	355-46-4	6.64	1.02	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
6:2 FTS	27619-97-2	<1.11	1.11	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFOA	335-67-1	13.2	0.945	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFHpS	375-92-8	<0.589	0.589	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFNA	375-95-1	<0.747	0.747	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFOSA	754-91-6	2.45	1.08	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFOS	1763-23-1	2.41	1.12	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
9Cl-PF3ONS	756426-58-1	<1.05	1.05	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFDA	335-76-2	<0.936	0.936	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
8:2 FTS	39108-34-4	<1.12	1.12	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFNS	68259-12-1	<1.14	1.14	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
MeFOSAA	2355-31-9	<0.940	0.940	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
EtFOSAA	2991-50-6	<1.03	1.03	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFUnA	2058-94-8	<0.747	0.747	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFDS	335-77-3	<0.752	0.752	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
11Cl-PF3OUdS	763051-92-9	<0.980	0.980	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFDoA	307-55-1	<0.965	0.965	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
MeFOSA	31506-32-8	<2.22	2.22	2.47		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFTrDA	72629-94-8	<0.648	0.648	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFDoS	79780-39-5	<1.40	1.40	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
PFTeDA	376-06-7	<0.807	0.807	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
EtFOSA	4151-50-2	<2.30	2.30	2.47		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
MeFOSE	24448-09-7	<1.98	1.98	2.47		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
EtFOSE	1691-99-2	<1.55	1.55	1.98		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	77.5	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C3-PFPeA	IS	78.7	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C3-PFBS	IS	75.2	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1

Sample ID: MW-51A Dup

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 11:10

Laboratory Data

Lab Sample: 2206072-03
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	91.3	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C2-PFHxA	IS	79.9	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C3-HFPO-DA	IS	72.6	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C4-PFHpA	IS	82.1	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C3-PFHxS	IS	72.9	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C2-6:2 FTS	IS	70.9	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C2-PFOA	IS	82.4	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C5-PFNA	IS	79.5	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C8-PFOSA	IS	56.1	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C8-PFOS	IS	89.8	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C2-PFDA	IS	79.3	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C2-8:2 FTS	IS	75.9	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
d3-MeFOSAA	IS	70.9	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
d5-EtFOSAA	IS	73.9	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C2-PFUnA	IS	78.3	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C2-PFDoA	IS	73.4	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
d3-MeFOSA	IS	23.1	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
13C2-PFTeDA	IS	74.2	25 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
d5-EtFOSA	IS	19.4	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
d7-MeFOSE	IS	40.2	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	1
d9-EtFOSE	IS	43.6	10 - 150		B22F069	23-Jun-22	0.253 L	27-Jun-22 19:00	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: AMW-01

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 13:55

Laboratory Data

Lab Sample: 2206072-04
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	3.95	0.985	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFPeA	2706-90-3	9.02	0.736	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFBS	375-73-5	6.51	0.882	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
4:2 FTS	757124-72-4	<0.926	0.926	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFHxA	307-24-4	7.20	0.795	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFPeS	2706-91-4	7.05	0.799	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
HFPO-DA	13252-13-6	<1.53	1.53	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFHpA	375-85-9	2.59	0.912	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
ADONA	919005-14-4	<0.624	0.624	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFHxS	355-46-4	27.0	1.00	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
6:2 FTS	27619-97-2	9.80	1.10	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFOA	335-67-1	1.99	0.931	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFHpS	375-92-8	<0.580	0.580	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFNA	375-95-1	<0.736	0.736	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFOSA	754-91-6	<1.06	1.06	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFOS	1763-23-1	6.13	1.10	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
9Cl-PF3ONS	756426-58-1	<1.04	1.04	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFDA	335-76-2	<0.921	0.921	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
8:2 FTS	39108-34-4	<1.11	1.11	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFNS	68259-12-1	<1.13	1.13	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
MeFOSAA	2355-31-9	<0.926	0.926	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
EtFOSAA	2991-50-6	<1.01	1.01	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFUnA	2058-94-8	<0.736	0.736	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFDS	335-77-3	<0.741	0.741	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
11Cl-PF3OUdS	763051-92-9	<0.965	0.965	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFDoA	307-55-1	<0.951	0.951	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
MeFOSA	31506-32-8	<2.18	2.18	2.44		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFTrDA	72629-94-8	<0.639	0.639	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFDoS	79780-39-5	<1.38	1.38	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
PFTeDA	376-06-7	<0.795	0.795	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
EtFOSA	4151-50-2	<2.27	2.27	2.44		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
MeFOSE	24448-09-7	<1.95	1.95	2.44		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
EtFOSE	1691-99-2	<1.53	1.53	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	87.7	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C3-PFPeA	IS	91.0	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C3-PFBS	IS	87.4	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1

Sample ID: AMW-01

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 13:55

Laboratory Data

Lab Sample: 2206072-04
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	87.8	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C2-PFHxA	IS	87.7	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C3-HFPO-DA	IS	82.5	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C4-PFHpA	IS	90.6	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C3-PFHxS	IS	95.2	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C2-6:2 FTS	IS	92.2	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C2-PFOA	IS	89.2	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C5-PFNA	IS	83.8	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C8-PFOSA	IS	51.1	10 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C8-PFOS	IS	90.7	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C2-PFDA	IS	89.9	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C2-8:2 FTS	IS	90.9	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
d3-MeFOSAA	IS	87.1	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
d5-EtFOSAA	IS	76.0	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C2-PFUnA	IS	82.7	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C2-PFDoA	IS	73.4	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
d3-MeFOSA	IS	7.00	10 - 150	H	B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
13C2-PFTeDA	IS	49.4	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
d5-EtFOSA	IS	5.00	10 - 150	H	B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
d7-MeFOSE	IS	21.6	10 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	1
d9-EtFOSE	IS	20.8	10 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 16:43	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: AMW-02

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 15:30

Laboratory Data

Lab Sample: 2206072-05
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.44	1.44	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFPeA	2706-90-3	<1.08	1.08	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFBS	375-73-5	<1.29	1.29	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
4:2 FTS	757124-72-4	<1.35	1.35	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFHxA	307-24-4	<1.16	1.16	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFPeS	2706-91-4	<1.17	1.17	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
HFPO-DA	13252-13-6	<2.23	2.23	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFHpA	375-85-9	<1.33	1.33	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
ADONA	919005-14-4	<0.912	0.912	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFHxS	355-46-4	2.18	1.47	2.85	J	B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
6:2 FTS	27619-97-2	<1.60	1.60	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFOA	335-67-1	1.55	1.36	2.85	J	B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFHpS	375-92-8	<0.848	0.848	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFNA	375-95-1	<1.08	1.08	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFOSA	754-91-6	6.98	1.55	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFOS	1763-23-1	4.79	1.61	2.85	Q	B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
9Cl-PF3ONS	756426-58-1	<1.52	1.52	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFDA	335-76-2	<1.35	1.35	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
8:2 FTS	39108-34-4	<1.62	1.62	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFNS	68259-12-1	<1.65	1.65	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
MeFOSAA	2355-31-9	<1.35	1.35	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
EtFOSAA	2991-50-6	<1.48	1.48	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFUnA	2058-94-8	<1.08	1.08	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFDS	335-77-3	<1.08	1.08	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
11Cl-PF3OUdS	763051-92-9	<1.41	1.41	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFDoA	307-55-1	<1.39	1.39	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
MeFOSA	31506-32-8	<3.19	3.19	3.56		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFTrDA	72629-94-8	<0.934	0.934	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFDoS	79780-39-5	<2.02	2.02	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
PFTeDA	376-06-7	<1.16	1.16	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
MeFOSE	24448-09-7	<2.85	2.85	3.56		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
EtFOSE	1691-99-2	<2.24	2.24	2.85		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	19.3	25 - 150	H	B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C3-PFPeA	IS	34.8	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C3-PFBS	IS	40.1	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C2-4:2 FTS	IS	47.9	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1

Sample ID: AMW-02

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 15:30

Laboratory Data

Lab Sample: 2206072-05
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	IS	41.2	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C3-HFPO-DA	IS	38.6	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C4-PFHpA	IS	45.5	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C3-PFHxS	IS	46.6	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C2-6:2 FTS	IS	42.9	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C2-PFOA	IS	44.0	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C5-PFNA	IS	47.6	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C8-PFOSA	IS	31.1	10 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C8-PFOS	IS	53.0	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C2-PFDA	IS	49.9	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C2-8:2 FTS	IS	41.9	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
d3-MeFOSAA	IS	39.1	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
d5-EtFOSAA	IS	39.1	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C2-PFUnA	IS	47.1	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C2-PFDoA	IS	38.2	25 - 150		B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
d3-MeFOSA	IS	1.20	10 - 150	H	B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
13C2-PFTeDA	IS	10.1	25 - 150	H	B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
d7-MeFOSE	IS	9.10	10 - 150	H	B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	1
d9-EtFOSE	IS	5.60	10 - 150	H	B22F069	23-Jun-22	0.175 L	27-Jun-22 19:53	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: EB-060722

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 12:40

Laboratory Data

Lab Sample: 2206072-06
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.984	0.984	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFPeA	2706-90-3	<0.736	0.736	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFBS	375-73-5	<0.882	0.882	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
4:2 FTS	757124-72-4	<0.926	0.926	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFHxA	307-24-4	<0.794	0.794	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFPeS	2706-91-4	<0.799	0.799	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
HFPO-DA	13252-13-6	<1.53	1.53	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFHpA	375-85-9	<0.911	0.911	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
ADONA	919005-14-4	<0.624	0.624	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFHxS	355-46-4	<1.00	1.00	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
6:2 FTS	27619-97-2	<1.10	1.10	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFOA	335-67-1	<0.931	0.931	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFHpS	375-92-8	<0.580	0.580	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFNA	375-95-1	<0.736	0.736	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFOSA	754-91-6	<1.06	1.06	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFOS	1763-23-1	<1.10	1.10	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
9Cl-PF3ONS	756426-58-1	<1.04	1.04	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFDA	335-76-2	<0.921	0.921	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
8:2 FTS	39108-34-4	<1.11	1.11	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFNS	68259-12-1	<1.13	1.13	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
MeFOSAA	2355-31-9	<0.926	0.926	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
EtFOSAA	2991-50-6	<1.01	1.01	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFUnA	2058-94-8	<0.736	0.736	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFDS	335-77-3	<0.741	0.741	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
11Cl-PF3OUdS	763051-92-9	<0.965	0.965	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFDoA	307-55-1	<0.950	0.950	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
MeFOSA	31506-32-8	<2.18	2.18	2.44		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFTrDA	72629-94-8	<0.638	0.638	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFDoS	79780-39-5	<1.38	1.38	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
PFTeDA	376-06-7	<0.794	0.794	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
EtFOSA	4151-50-2	<2.27	2.27	2.44		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
MeFOSE	24448-09-7	<1.95	1.95	2.44		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
EtFOSE	1691-99-2	<1.53	1.53	1.95		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	85.4	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C3-PFPeA	IS	85.6	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C3-PFBS	IS	88.8	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1

Sample ID: EB-060722

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 12:40

Laboratory Data

Lab Sample: 2206072-06
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	95.9	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C2-PFHxA	IS	87.8	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C3-HFPO-DA	IS	87.9	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C4-PFHpA	IS	92.3	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C3-PFHxS	IS	86.2	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C2-6:2 FTS	IS	78.1	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C2-PFOA	IS	85.6	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C5-PFNA	IS	82.8	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C8-PFOSA	IS	62.6	10 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C8-PFOS	IS	102	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C2-PFDA	IS	84.7	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C2-8:2 FTS	IS	78.7	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
d3-MeFOSAA	IS	86.5	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
d5-EtFOSAA	IS	82.1	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C2-PFUnA	IS	88.0	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C2-PFDoA	IS	86.5	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
d3-MeFOSA	IS	24.1	10 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
13C2-PFTeDA	IS	77.2	25 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
d5-EtFOSA	IS	22.6	10 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
d7-MeFOSE	IS	43.4	10 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	1
d9-EtFOSE	IS	42.4	10 - 150		B22F069	23-Jun-22	0.257 L	27-Jun-22 20:03	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: AMW-05

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 17:30

Laboratory Data

Lab Sample: 2206072-07
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	22.7	1.03	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFPeA	2706-90-3	51.3	0.767	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFBS	375-73-5	65.4	0.920	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
4:2 FTS	757124-72-4	<0.965	0.965	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFHxA	307-24-4	248	0.828	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFPeS	2706-91-4	139	0.833	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
HFPO-DA	13252-13-6	<1.59	1.59	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFHpA	375-85-9	70.6	0.950	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
ADONA	919005-14-4	<0.650	0.650	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFHxS	355-46-4	3610	5.23	10.2	D	B22F069	23-Jun-22	0.246 L	29-Jun-22 17:24	5
6:2 FTS	27619-97-2	93.5	1.14	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFOA	335-67-1	553	0.971	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFHpS	375-92-8	90.3	0.605	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFNA	375-95-1	5.91	0.767	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFOSA	754-91-6	601	1.11	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFOS	1763-23-1	3160	5.74	10.2	D	B22F069	23-Jun-22	0.246 L	29-Jun-22 17:24	5
9Cl-PF3ONS	756426-58-1	<1.08	1.08	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFDA	335-76-2	<0.960	0.960	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
8:2 FTS	39108-34-4	7.33	1.15	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFNS	68259-12-1	<1.17	1.17	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
MeFOSAA	2355-31-9	<0.965	0.965	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
EtFOSAA	2991-50-6	<1.06	1.06	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFUnA	2058-94-8	<0.767	0.767	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFDS	335-77-3	<0.772	0.772	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
11Cl-PF3OUdS	763051-92-9	<1.01	1.01	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFDoA	307-55-1	<0.991	0.991	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
MeFOSA	31506-32-8	<2.28	2.28	2.54		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFTrDA	72629-94-8	<0.666	0.666	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFDoS	79780-39-5	<1.44	1.44	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
PFTeDA	376-06-7	<0.828	0.828	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
EtFOSA	4151-50-2	<2.36	2.36	2.54		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
MeFOSE	24448-09-7	<2.03	2.03	2.54		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
EtFOSE	1691-99-2	<1.60	1.60	2.03		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	84.0	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C3-PFPeA	IS	82.6	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C3-PFBS	IS	78.0	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1

Sample ID: AMW-05

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 07-Jun-22 17:30

Laboratory Data

Lab Sample: 2206072-07
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	91.5	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C2-PFHxA	IS	81.0	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C3-HFPO-DA	IS	71.5	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C4-PFHpA	IS	85.1	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C3-PFHxS	IS	86.0	25 - 150	D	B22F069	23-Jun-22	0.246 L	29-Jun-22 17:24	5
13C2-6:2 FTS	IS	74.9	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C2-PFOA	IS	80.3	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C5-PFNA	IS	81.0	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C8-PFOSA	IS	47.5	10 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C8-PFOS	IS	82.0	25 - 150	D	B22F069	23-Jun-22	0.246 L	29-Jun-22 17:24	5
13C2-PFDA	IS	84.2	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C2-8:2 FTS	IS	82.7	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
d3-MeFOSAA	IS	90.6	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
d5-EtFOSAA	IS	69.2	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C2-PFUnA	IS	83.6	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C2-PFDoA	IS	82.2	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
d3-MeFOSA	IS	14.9	10 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
13C2-PFTeDA	IS	77.5	25 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
d5-EtFOSA	IS	13.6	10 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
d7-MeFOSE	IS	32.1	10 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	1
d9-EtFOSE	IS	32.7	10 - 150		B22F069	23-Jun-22	0.246 L	27-Jun-22 20:14	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: AMW-04

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 08-Jun-22 09:35

Laboratory Data

Lab Sample: 2206072-08
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	15.6	0.997	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFPeA	2706-90-3	50.0	0.745	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFBS	375-73-5	4.88	0.893	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
4:2 FTS	757124-72-4	<0.938	0.938	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFHxA	307-24-4	27.6	0.804	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFPeS	2706-91-4	2.83	0.809	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
HFPO-DA	13252-13-6	<1.54	1.54	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFHpA	375-85-9	17.3	0.923	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
ADONA	919005-14-4	<0.632	0.632	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFHxS	355-46-4	52.2	1.02	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
6:2 FTS	27619-97-2	119	1.11	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFOA	335-67-1	11.5	0.943	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFHpS	375-92-8	3.50	0.587	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFNA	375-95-1	<0.745	0.745	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFOSA	754-91-6	1.99	1.08	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFOS	1763-23-1	230	1.12	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
9Cl-PF3ONS	756426-58-1	<1.05	1.05	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFDA	335-76-2	<0.933	0.933	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
8:2 FTS	39108-34-4	<1.12	1.12	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFNS	68259-12-1	<1.14	1.14	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
MeFOSAA	2355-31-9	<0.938	0.938	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
EtFOSAA	2991-50-6	<1.03	1.03	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFUnA	2058-94-8	<0.745	0.745	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFDS	335-77-3	<0.750	0.750	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
11Cl-PF3OUdS	763051-92-9	<0.977	0.977	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFDoA	307-55-1	<0.962	0.962	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
MeFOSA	31506-32-8	<2.21	2.21	2.47		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFTrDA	72629-94-8	<0.647	0.647	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFDoS	79780-39-5	<1.40	1.40	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
PFTeDA	376-06-7	<0.804	0.804	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
EtFOSA	4151-50-2	<2.29	2.29	2.47		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
MeFOSE	24448-09-7	<1.97	1.97	2.47		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
EtFOSE	1691-99-2	<1.55	1.55	1.97		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	88.3	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C3-PFPeA	IS	86.0	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C3-PFBS	IS	82.1	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1

Sample ID: AMW-04

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 08-Jun-22 09:35

Laboratory Data

Lab Sample: 2206072-08
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	96.9	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C2-PFHxA	IS	89.1	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C3-HFPO-DA	IS	84.3	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C4-PFHpA	IS	95.7	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C3-PFHxS	IS	86.9	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C2-6:2 FTS	IS	95.5	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C2-PFOA	IS	88.1	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C5-PFNA	IS	85.7	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C8-PFOSA	IS	61.0	10 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C8-PFOS	IS	85.5	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C2-PFDA	IS	89.0	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C2-8:2 FTS	IS	99.7	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
d3-MeFOSAA	IS	81.5	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
d5-EtFOSAA	IS	79.3	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C2-PFUnA	IS	83.7	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C2-PFDoA	IS	89.7	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
d3-MeFOSA	IS	22.2	10 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
13C2-PFTeDA	IS	77.5	25 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
d5-EtFOSA	IS	21.4	10 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
d7-MeFOSE	IS	43.5	10 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	1
d9-EtFOSE	IS	45.4	10 - 150		B22F069	23-Jun-22	0.253 L	28-Jun-22 17:04	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: AMW-03

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 08-Jun-22 11:10

Laboratory Data

Lab Sample: 2206072-09
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	1120	1.01	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFPeA	2706-90-3	6040	30.1	79.7	D	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
PFBS	375-73-5	534	0.902	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
4:2 FTS	757124-72-4	257	0.947	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFHxA	307-24-4	3270	32.5	79.7	D	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
PFPeS	2706-91-4	791	0.817	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
HFPO-DA	13252-13-6	<1.56	1.56	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFHpA	375-85-9	1220	0.932	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
ADONA	919005-14-4	<0.638	0.638	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFHxS	355-46-4	7080	41.1	79.7	D	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
6:2 FTS	27619-97-2	12800	44.8	79.7	D	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
PFOA	335-67-1	1020	0.952	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFHpS	375-92-8	273	0.593	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFNA	375-95-1	11.8	0.752	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFOSA	754-91-6	<1.09	1.09	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFOS	1763-23-1	5230	45.0	79.7	D	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
9Cl-PF3ONS	756426-58-1	<1.06	1.06	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFDA	335-76-2	<0.942	0.942	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
8:2 FTS	39108-34-4	2.02	1.13	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFNS	68259-12-1	<1.15	1.15	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
MeFOSAA	2355-31-9	<0.947	0.947	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
EtFOSAA	2991-50-6	<1.04	1.04	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFUnA	2058-94-8	<0.752	0.752	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFDS	335-77-3	<0.757	0.757	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
11Cl-PF3OUdS	763051-92-9	<0.986	0.986	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFDoA	307-55-1	<0.972	0.972	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
MeFOSA	31506-32-8	<2.23	2.23	2.49		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFTrDA	72629-94-8	<0.653	0.653	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFDoS	79780-39-5	<1.41	1.41	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
PFTeDA	376-06-7	<0.812	0.812	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
EtFOSA	4151-50-2	<2.32	2.32	2.49		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
MeFOSE	24448-09-7	<1.99	1.99	2.49		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
EtFOSE	1691-99-2	<1.56	1.56	1.99		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	72.0	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C3-PFPeA	IS	80.0	25 - 150	D	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
13C3-PFBS	IS	70.0	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1

Sample ID: AMW-03

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 08-Jun-22 11:10

Laboratory Data

Lab Sample: 2206072-09
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	74.9	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C2-PFHxA	IS	96.0	25 - 150	D	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
13C3-HFPO-DA	IS	68.1	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C4-PFHpA	IS	64.3	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C3-PFHxS	IS	64.0	25 - 150	D	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
13C2-6:2 FTS	IS	204	25 - 150	D, H	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
13C2-PFOA	IS	68.2	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C5-PFNA	IS	77.2	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C8-PFOSA	IS	49.1	10 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C8-PFOS	IS	56.0	25 - 150	D	B22F069	23-Jun-22	0.251 L	30-Jun-22 16:08	40
13C2-PFDA	IS	81.2	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C2-8:2 FTS	IS	84.0	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
d3-MeFOSAA	IS	75.8	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
d5-EtFOSAA	IS	62.3	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C2-PFUnA	IS	76.4	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C2-PFDoA	IS	67.5	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
d3-MeFOSA	IS	15.8	10 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
13C2-PFTeDA	IS	43.3	25 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
d5-EtFOSA	IS	12.3	10 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
d7-MeFOSE	IS	32.9	10 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	1
d9-EtFOSE	IS	31.8	10 - 150		B22F069	23-Jun-22	0.251 L	27-Jun-22 20:35	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: AB-060822

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 08-Jun-22 11:30

Laboratory Data

Lab Sample: 2206072-10
Date Received: 09-Jun-22 09:35
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<0.985	0.985	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFPeA	2706-90-3	<0.737	0.737	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFBS	375-73-5	<0.883	0.883	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
4:2 FTS	757124-72-4	<0.927	0.927	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFHxA	307-24-4	<0.795	0.795	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFPeS	2706-91-4	<0.800	0.800	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
HFPO-DA	13252-13-6	<1.53	1.53	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFHpA	375-85-9	<0.912	0.912	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
ADONA	919005-14-4	<0.624	0.624	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFHxS	355-46-4	<1.00	1.00	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
6:2 FTS	27619-97-2	<1.10	1.10	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFOA	335-67-1	<0.932	0.932	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFHpS	375-92-8	<0.581	0.581	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFNA	375-95-1	<0.737	0.737	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFOSA	754-91-6	<1.06	1.06	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFOS	1763-23-1	<1.10	1.10	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
9Cl-PF3ONS	756426-58-1	<1.04	1.04	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFDA	335-76-2	<0.922	0.922	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
8:2 FTS	39108-34-4	<1.11	1.11	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFNS	68259-12-1	<1.13	1.13	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
MeFOSAA	2355-31-9	<0.927	0.927	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
EtFOSAA	2991-50-6	<1.01	1.01	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFUnA	2058-94-8	<0.737	0.737	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFDS	335-77-3	<0.742	0.742	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
11Cl-PF3OUdS	763051-92-9	<0.966	0.966	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFDoA	307-55-1	<0.951	0.951	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
MeFOSA	31506-32-8	<2.19	2.19	2.44		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFTrDA	72629-94-8	<0.639	0.639	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFDoS	79780-39-5	<1.38	1.38	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
PFTeDA	376-06-7	<0.795	0.795	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
EtFOSA	4151-50-2	<2.27	2.27	2.44		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
MeFOSE	24448-09-7	<1.95	1.95	2.44		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
EtFOSE	1691-99-2	<1.53	1.53	1.95		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	91.4	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C3-PFPeA	IS	91.7	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C3-PFBS	IS	93.9	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1

Sample ID: AB-060822

PFAS Isotope Dilution Method

Client Data

Name: AECOM
Project: CVRA
Matrix: Aqueous
Date Collected: 08-Jun-22 11:30

Laboratory Data

Lab Sample: 2206072-10
Date Received: 09-Jun-22 09:35
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	90.1	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C2-PFHxA	IS	96.2	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C3-HFPO-DA	IS	80.7	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C4-PFHpA	IS	102	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C3-PFHxS	IS	101	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C2-6:2 FTS	IS	97.4	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C2-PFOA	IS	97.9	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C5-PFNA	IS	96.5	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C8-PFOSA	IS	49.5	10 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C8-PFOS	IS	98.6	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C2-PFDA	IS	94.9	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C2-8:2 FTS	IS	99.2	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
d3-MeFOSAA	IS	71.6	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
d5-EtFOSAA	IS	80.3	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C2-PFUnA	IS	89.9	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C2-PFDoA	IS	81.2	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
d3-MeFOSA	IS	19.4	10 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
13C2-PFTeDA	IS	79.2	25 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
d5-EtFOSA	IS	17.9	10 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
d7-MeFOSE	IS	42.7	10 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	1
d9-EtFOSE	IS	43.0	10 - 150		B22F069	23-Jun-22	0.256 L	28-Jun-22 17:25	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
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	2211390
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
Pennsylvania Department of Environmental Protection	018
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 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	PFAS Isotope Dilution
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	PFAS Isotope Dilution
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
Perfluorooctanesulonate (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	PFAS Isotope Dilution
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	PFAS Isotope Dilution
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

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 2206072 Temp: 1.7 °C
Storage ID: R-13, GR-2 Storage Secured: Yes ☑ No ☐

Project ID: CURA PO#: 6016069304 Sampler: Marcus Hopkins (name)

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

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Marcus Hopkins Marcus Hopkins	6/8/22	1710	Transfer to fedex	6/8/22	1700
FedEx	06/09/22	0935	KeliaWadsworth Kelia Wadsworth	06/09/22	0935

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.: _____

Add Analysis(es) Requested

Sample ID	Date	Time	Location/ Sample Description	Container(s) Quantity	Type	Matrix	PFAS by Isotope Dilution: PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List: 14 or 18 (Circle One)	EPA Draft List of 24	OTHER: WP 33 list Please attach analyte list method 537 mod	EPA Method 537 (DW only): PFOA/ PFOS	UCMR3 PFAS List:6	537.1 List of 14	537.1 List of 18	Comments
MW-55A	6/7/22	0940		2	P	AQ					X					
MW-[redacted]51A	6/7/22	1110		2	P	AQ					X					
MW-51A DUP	6/7/22	1110		2	P	AQ					X					
AMW-01	6/7/22	1355		2	P	AQ					X					
AMW-02	6/7/22	1530		1	P	AQ					X					Insufficient volume.
EB-060722	6/7/22	1240		2	P	AQ					X					
AMW-05	6/7/22	1730		2	P	AQ					X					
AMW-04	6/8/22	0935		2	P	AQ					X					
AMW-03	6/8/22	1110		2	P	AQ					X					
AB-060822	6/8/22	1130		2	P	AQ					X					

Special Instructions/Comment

SEND DOCUMENTATION AND RESULTS TO:
Name: Andrew Mott
Company: _____
Address: _____
City: _____ State: ___ Zip: _____
Phone: _____
Email: andrewsmott@aecom.com

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

Bottle Preservation Type: 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 _____

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2206072 TAT Std

Samples Arrival:	**Date/Time** 06/09/22 0935		**Initials:** KW		**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: 1.8 (uncorrected) **Temp °C:** 1.7 (corrected)			**Probe used: Y / (N)**		**Thermometer ID:** IR-3		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill — Trk # 8130 1248 1206	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / (Client) / Retain / (Return) / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 06/10/22 07:36	**Initials:** KZ	**Location:** R-13, WR-2 **Shelf/Rack:** A-3, E-4
COC Anomaly/Sample Acceptance Form completed?		NO ✓	NA ✓

Comments:

CoC/Label Reconciliation Report WO# 2206072

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time		Container	BaseMatrix	Sample Comments
2206072-01	A MW-55A	☑		07-Jun-22 09:40	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-01	B MW-55A	☑		07-Jun-22 09:40	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-02	A MW-51A	☑		07-Jun-22 11:10	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-02	B MW-51A	☑		07-Jun-22 11:10	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-03	A MW-51A Dup	☑		07-Jun-22 11:10	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-03	B MW-51A Dup	☑		07-Jun-22 11:10	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-04	A AMW-01	☑		07-Jun-22 13:55	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-04	B AMW-01	☑		07-Jun-22 13:55	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-05	A AMW-02	☑ (A)		07-Jun-22 15:30	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-06	A EB-060722	☑		07-Jun-22 12:40	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-06	B EB-060722	☑		07-Jun-22 12:40	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-07	A AMW-05	☑		07-Jun-22 17:30	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-07	B AMW-05	☑		07-Jun-22 17:30	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-08	A AMW-04	☑		08-Jun-22 09:35	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-08	B AMW-04	☑		08-Jun-22 09:35	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-09	A AMW-03	☑		08-Jun-22 11:10	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-09	B AMW-03	☑		08-Jun-22 11:10	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-10	A AB-060822	☑		08-Jun-22 11:30	☑	HDPE Bottle, 250 mL	Aqueous	
2206072-10	B AB-060822	☑		08-Jun-22 11:30	☑	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: (A) No Backup Volume

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 (None) Other

Verifed by/Date: SH 06/10/22