

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 #)	
Enbridge Energy Superior Terminal		02-16-589282	
Address	City	State	ZIP Code
2800 East 21st Street	Superior	WI	54880

Responsible Party

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

Property Owner

Enbridge Energy, Limited Partnership (Enbridge)

Address	City	State	ZIP Code
11 East Superior Street, Suite 125	Duluth	MN	55802

Contact Person	Phone Number (include area code)
Karl Beaster, PG, Senior Environmental Advisor	(715) 718-1040

Person or company that collected samples

AECOM

Sample Results (Results Attached)

Reason for Sampling: Routine Other (define) Site Investigation

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

Contaminant	In Soil?		In Groundwater?	
	Yes	No	Yes	No
Gasoline	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Diesel or Fuel Oil	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Solvents	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Heavy Metals	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pesticides	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other: <u>PFAS</u>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

This sampling event included sampling of a drinking water well. <input type="radio"/> Yes <input checked="" type="radio"/> No
If yes, the sampled drinking water well had detectable contaminants. <input type="radio"/> Yes <input type="radio"/> No

Contaminants in Vapor

	Yes	No
Indoor Air	<input type="radio"/>	<input checked="" type="radio"/>
Sub-slab	<input type="radio"/>	<input checked="" type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input checked="" type="radio"/>

Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

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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/tr589.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		Linnemanstons	Leo	
Address		City	State	ZIP Code
1350 Deming Way, Suite 100		Middleton	WI	53562
Phone # (inc. area code)	Email			
(608) 828-8208	leo.linnemanstons@aecom.com			

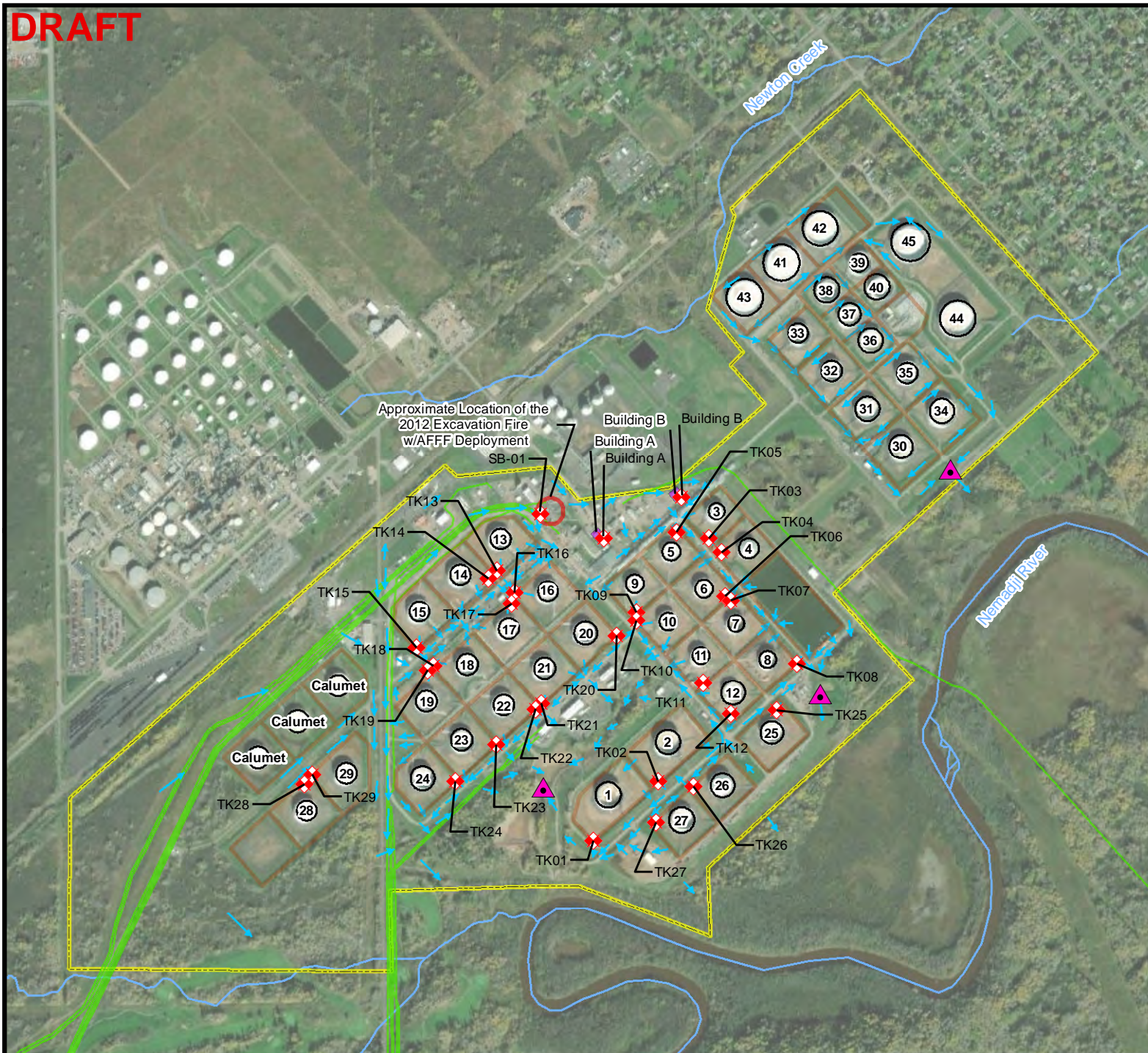
Select which agency: Natural Resources Agriculture, Trade and Consumer Protection

State of Wisconsin Department of Natural Resources

Contact Person Last Name	First Name	Phone # (inc. area code)		
Sager	John	(715) 919-7239		
Address	City	State	ZIP Code	
1701 North 4th Street	Superior	WI	54880	
Email				
john.sager@wisconsin.gov				

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Document Path: C:\Users\aldeaal\AECOM\GIS Services - GIS CAD PROJECTS\DCS AMERICAS\RE\MWEST\F464\Enbridge Energy Superior Terminal\20220907\02_Work\Fig02_Site Features Map.mxd



ENBRIDGE

Surface Soil PFAS Investigation
 Enbridge Energy Superior Terminal
 2800 East 21st Street
 Superior, Wisconsin
Figure 2: Site Features Map

Legend

- ◆ Sample location
- ▲ WPDES Outfalls
- Containment Berm
- Surface Flow Direction
- Storage Tank
- Enbridge Pipelines
- Terminal Property Boundary
- Rivers/Streams

0 625 1,250 Feet N
 1 inch = 1,167 feet

Prepared by:
AECOM
 200 Indiana Avenue
 Stevens Point WI, USA
 www.AECOM.com

Drawn:	AA	9/7/2022
Approved:	CS	9/7/2022
Scale:		1:14,000
Project No:		60683192
Figure No:		2

Table 1

PFAS Surface Soil Results
Enbridge Superior Terminal (BRRTS# 02-16-589282)
Superior, Wisconsin

				Field ID:	PR-Building A-HA01(0-6)	PR-Building B-HA01(0-6)	PR-TK01- HA01(0-6)	PR-TK02- HA01(0-6)	PR-TK03- HA01(0-6)	PR-TK04- HA01(0-6)	PR-TK05- HA01(0-6)	PR-TK06- HA01(0-6)	PR-TK07- HA01(0-6)	PR-TK08- HA01(0-6)
				Sample Date:	7/6/2022	7/6/2022	7/6/2022	7/6/2022	7/6/2022	7/6/2022	7/6/2022	7/6/2022	7/6/2022	7/6/2022
Abbr	Analyte	Cas Number	Units											
Carboxylic Acids:														
PFBA	Perfluorobutanoic acid	375-22-4	ug/kg	< 0.028	< 0.028	0.082 J	0.15	< 0.028	< 0.028	< 0.028	0.11	0.17	0.11	
PFPeA	Perfluoropentanoic acid	2706-90-3	ug/kg	0.076 J	0.065 J	0.26	0.62	< 0.028	0.038 J	0.056 J	0.35	0.44	0.49	
PFHxA	Perfluorohexanoic acid	307-24-4	ug/kg	0.057 J	0.056 J	0.14	0.25	< 0.027	0.03 J	< 0.027	0.16	0.24	0.24	
PFHpA	Perfluoroheptanoic acid	375-85-9	ug/kg	< 0.034	0.05 J	0.15	0.19	< 0.034	< 0.034	< 0.034	0.25	0.24	0.24	
PFOA	Perfluorooctanoic acid	335-67-1	ug/kg	0.038 J	0.051 J	0.15	0.19	0.037 J	0.032 J	0.033 J	0.2	0.38	0.31	
PFNA	Perfluorononanoic acid	375-95-1	ug/kg	< 0.03	0.041 J	0.18	0.28	0.043 J	< 0.031	< 0.031	0.072 J	0.2	0.48	
PFDA	Perfluorodecanoic acid	335-76-2	ug/kg	0.32	0.049 J	0.38	0.51	0.052 J	< 0.022	< 0.023	0.13	0.24	0.71	
PFUnA	Perfluoroundecanoic acid	2058-94-8	ug/kg	0.049 J	< 0.029	0.06 J	0.41	0.057 J	< 0.03	< 0.03	0.038 J	0.1	0.31	
PFDaA	Perfluorododecanoic acid	307-55-1	ug/kg	0.069 J	< 0.032	0.039 J	0.37	< 0.032	< 0.032	< 0.033	0.035 J	0.06 J	0.2	
PFTrDA	Perfluorotridecanoic acid	72629-94-8	ug/kg	< 0.031	< 0.031	< 0.03	0.093 J	< 0.031	< 0.031	< 0.032	< 0.03	< 0.031	0.043 J	
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ug/kg	< 0.034	< 0.033	< 0.033	0.099	< 0.033	< 0.034	< 0.034	< 0.032	< 0.033	< 0.032	
Sulfonic Acids:														
PFBS	Perfluorobutanesulfonic acid	375-73-5	ug/kg	< 0.026	< 0.026	< 0.025	< 0.025	< 0.026	< 0.026	< 0.026	< 0.025	< 0.025	< 0.025	< 0.025
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ug/kg	< 0.024	< 0.023	< 0.023	< 0.023	< 0.023	< 0.024	< 0.024	< 0.023	< 0.023	< 0.023	< 0.023
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ug/kg	0.029 J	< 0.021	< 0.021	0.068 J	< 0.021	< 0.022	< 0.022	< 0.021	0.039 J	< 0.021	< 0.021
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ug/kg	< 0.027	< 0.027	< 0.026	< 0.026	< 0.027	< 0.027	< 0.028	< 0.026	< 0.027	< 0.026	< 0.026
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ug/kg	0.73	0.17	0.17	2.7	0.1	0.071 J	< 0.029	< 0.028	0.39	0.28	
PFNS	Perfluorononanesulfonic acid	68259-12-1	ug/kg	< 0.034	< 0.034	< 0.033	< 0.033	< 0.034	< 0.034	< 0.034	< 0.033	< 0.034	< 0.033	< 0.033
PFDS	Perfluorodecanesulfonic acid	335-77-3	ug/kg	0.039 J	< 0.028	< 0.027	< 0.027	< 0.028	< 0.028	< 0.028	< 0.027	< 0.027	< 0.027	< 0.027
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ug/kg	< 0.026	< 0.025	< 0.025	< 0.025	< 0.025	< 0.026	< 0.026	< 0.025	< 0.025	< 0.025	< 0.025
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ug/kg	< 0.023	< 0.023	< 0.022	< 0.022	< 0.023	< 0.023	< 0.023	< 0.022	< 0.022	< 0.022	< 0.022
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ug/kg	< 0.041	< 0.04	0.064 J	0.3	< 0.04	0.043 J	< 0.041	< 0.039	< 0.04	0.084 J	
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ug/kg	< 0.043	1.3	< 0.042	0.89	< 0.043	< 0.043	< 0.043	0.21	< 0.042	0.23	
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:														
PFOSA	Perfluorooctane sulfonamide	754-91-6	ug/kg	< 0.029	< 0.029	< 0.028	0.032 J	< 0.029	< 0.029	< 0.029	< 0.028	< 0.028	< 0.028	< 0.028
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ug/kg	< 0.027 UR	< 0.027 UR	< 0.026 UR	< 0.026 UR	< 0.027 UR	< 0.027 UR	< 0.027 UR	< 0.026 UR	< 0.026 UR	< 0.026 UR	< 0.026 UR
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ug/kg	< 0.025 UR	< 0.025 UR	< 0.024 UR	< 0.024 UR	< 0.025 UR	< 0.025 UR	< 0.025 UR	< 0.024 UR	< 0.025 UR	< 0.024 UR	< 0.024 UR
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ug/kg	< 0.028	< 0.027	< 0.027	< 0.027	< 0.027	< 0.028	< 0.028	< 0.027	< 0.027	< 0.027	< 0.027
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ug/kg	0.074 J	< 0.039	< 0.038	< 0.038	< 0.039	< 0.04	< 0.04	< 0.038	< 0.039	< 0.038	< 0.038
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ug/kg	< 0.03	< 0.03	< 0.029 UR	< 0.029 UR	< 0.03 UR	< 0.03 UR	< 0.03 UR	< 0.029 UR	< 0.029 UR	< 0.029 UR	< 0.029 UR
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ug/kg	< 0.032	< 0.031	< 0.031 UR	< 0.031 UR	< 0.031 UR	< 0.032 UR	< 0.032 UR	< 0.03 UR	< 0.031 UR	< 0.03 UR	< 0.03 UR
Replacement Chemicals:														
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ug/kg	< 0.027	< 0.027	< 0.026	< 0.026	< 0.027	< 0.027	< 0.028	< 0.026	< 0.027	< 0.026	< 0.026
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ug/kg	< 0.036	< 0.035	< 0.035	< 0.034	< 0.035	< 0.036	< 0.036	< 0.034	< 0.035	< 0.034	< 0.034
9CI-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ug/kg	< 0.025	< 0.025	< 0.024	< 0.024	< 0.024	< 0.025	< 0.025	< 0.024	< 0.024	< 0.024	< 0.024
11CI-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ug/kg	< 0.025	< 0.025	< 0.024	< 0.024	< 0.025	< 0.025	< 0.025	< 0.024	< 0.024	< 0.024	< 0.024

Note:
ug/kg - micrograms per kilogram.
J - Estimated concentration (+/- indicate the direction of bias).
R - Rejected due to serious deficiencies in meeting QC criteria.
Non-detects reported as < MDL.

Table 1

PFAS Surface Soil Results
Enbridge Superior Terminal (BRRTS# 02-16-589282)
Superior, Wisconsin

				Field ID:	PR-TK09- HA01(0-6)	PR-TK10- HA01(0-6)	PR-TK11- HA01(0-6)	PR-TK12- HA01(0-6)	PR-TK13- HA01(0-6)	PR-TK14- HA01(0-6)	PR-TK15- HA01(0-6)	PR-TK16- HA01(0-6)	PR-TK17- HA01(0-6)	PR-TK18- HA01(0-6)
				Sample Date:	7/6/2022	7/6/2022	7/6/2022	7/6/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022	7/5/2022
Abbr	Analyte	Cas Number	Units											
Carboxylic Acids:														
PFBA	Perfluorobutanoic acid	375-22-4	ug/kg	0.097 J	< 0.026	0.62	0.07 J	0.23	0.028 J	0.78	0.04 J	0.15	0.12	
PFPeA	Perfluoropentanoic acid	2706-90-3	ug/kg	0.3	< 0.026	3	0.31	1.1	0.11	3.8	0.12	0.3	0.41	
PFHxA	Perfluorohexanoic acid	307-24-4	ug/kg	0.19	< 0.025	1.2	0.19	0.43	0.064 J	1.7	0.079 J	0.19	0.21	
PFFpA	Perfluoroheptanoic acid	375-85-9	ug/kg	0.19	< 0.032	0.62	0.13	0.17	0.046 J	0.58	0.073 J	0.11	0.3	
PFOA	Perfluorooctanoic acid	335-67-1	ug/kg	0.39	< 0.028	0.43	0.13	0.15	0.089 J	0.87	0.069 J	0.13	0.26	
PFNA	Perfluorononanoic acid	375-95-1	ug/kg	0.22	< 0.028	0.28	< 0.03	0.11	0.065 J	0.61	0.049 J	0.075 J	0.29	
PFDA	Perfluorodecanoic acid	335-76-2	ug/kg	0.19	0.058 J	0.87	< 0.022	0.11	0.027 J	1.9	0.09 J	0.043 J	1	
PFOA	Perfluoroundecanoic acid	2058-94-8	ug/kg	0.058 J	0.045 J	1.2	< 0.029	< 0.029	< 0.028	1.1	0.073 J	0.03 J	0.32	
PFDaA	Perfluorododecanoic acid	307-55-1	ug/kg	0.054 J	< 0.03	1.3	< 0.032	< 0.031	< 0.03	0.53	0.049 J	< 0.029	0.16	
PFTrDA	Perfluorotridecanoic acid	72629-94-8	ug/kg	< 0.032	< 0.029	0.29	0.47 J	< 0.031	< 0.029	0.096	< 0.03	< 0.028	< 0.03	
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ug/kg	< 0.034	< 0.031	0.36	< 0.033	< 0.033	< 0.032	0.074 J	< 0.032	< 0.03	< 0.033	
Sulfonic Acids:														
PFBS	Perfluorobutanesulfonic acid	375-73-5	ug/kg	< 0.026	< 0.024	< 0.025	< 0.025	0.065 J	< 0.024	< 0.025	< 0.025	< 0.023	< 0.025	
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ug/kg	< 0.024	< 0.022	0.051 J	< 0.023	0.094	< 0.022	< 0.023	< 0.022	< 0.021	< 0.023	
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ug/kg	< 0.022	< 0.02	1.1	< 0.021	1	0.064 J	0.2	< 0.02	< 0.019	< 0.021	
PFFpS	Perfluoroheptanesulfonic acid	375-92-8	ug/kg	< 0.028	< 0.025	0.11	< 0.027	0.051 J	< 0.026	< 0.026	< 0.026	< 0.025	< 0.026	
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ug/kg	0.063 J	0.13	35	< 0.028	6.7	0.2	9.2	0.085 J	0.1	0.19	
PFNS	Perfluorononanesulfonic acid	68259-12-1	ug/kg	< 0.035	< 0.032	0.43	< 0.033	< 0.033	< 0.032	0.077 J	< 0.032	< 0.031	< 0.033	
PFDS	Perfluorodecanesulfonic acid	335-77-3	ug/kg	< 0.028	< 0.026	0.9	< 0.027	< 0.027	< 0.026	0.04 J	< 0.026	< 0.025	< 0.027	
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ug/kg	< 0.026	< 0.024	0.17	< 0.025	< 0.025	< 0.024	< 0.025	< 0.024	< 0.023	< 0.025	
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ug/kg	< 0.023	< 0.021	< 0.022	< 0.022	< 0.022	< 0.021	< 0.022	< 0.022	< 0.021	< 0.022	
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ug/kg	< 0.041	< 0.038	3.5	< 0.04	0.23	< 0.038	3.6	< 0.039	< 0.037	< 0.039	
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ug/kg	0.12	< 0.04	6.2	< 0.042	0.054 J	< 0.04	3.5	0.086 J	< 0.039	0.32	
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:														
PFOSA	Perfluorooctane sulfonamide	754-91-6	ug/kg	< 0.029	< 0.027	1.4	< 0.028	0.034 J	< 0.027	0.075 J	< 0.027	< 0.026	< 0.028	
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ug/kg	< 0.027 UR	< 0.025 UR	< 0.026 UR	< 0.026 UR	< 0.026 UR	< 0.025 UR	< 0.026 UR	< 0.025 UR	< 0.024 UR	< 0.026 UR	
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ug/kg	< 0.026 UR	< 0.023 UR	< 0.024 UR	< 0.025 UR	< 0.025 UR	< 0.024 UR	< 0.024 UR	< 0.024 UR	< 0.023 UR	< 0.024 UR	
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ug/kg	< 0.028	< 0.026	0.14	< 0.027	< 0.027	< 0.026	< 0.027	< 0.026	< 0.025	< 0.027	
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ug/kg	< 0.04	< 0.037	0.073 J	< 0.039	< 0.038	< 0.037	< 0.038	< 0.038	< 0.036	< 0.038	
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ug/kg	< 0.03 UR	< 0.028 UR	< 0.029	< 0.029 UR	< 0.029	< 0.028 UR	< 0.029	< 0.028 UR	< 0.027 UR	< 0.029 UR	
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ug/kg	< 0.032 UR	< 0.029 UR	< 0.031	< 0.031 UR	< 0.031 UR	< 0.03 UR	< 0.03 UR	< 0.03 UR	< 0.029 UR	< 0.031 UR	
Replacement Chemicals:														
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ug/kg	< 0.028	< 0.025	< 0.027	< 0.027	< 0.027	< 0.026	< 0.026	< 0.026	< 0.025	< 0.026	
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ug/kg	< 0.036	< 0.033	< 0.035	< 0.035	< 0.035	< 0.033	< 0.034	< 0.034	< 0.032	< 0.034	
9CI-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ug/kg	< 0.025	< 0.023	< 0.024	< 0.024	< 0.024	< 0.023	< 0.024	< 0.023	< 0.022	< 0.024	
11CI-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ug/kg	< 0.025	< 0.023	< 0.024	< 0.024	< 0.024	< 0.023	< 0.024	< 0.024	< 0.022	< 0.024	

Note:
ug/kg - micrograms per kilogram.
J - Estimated concentration (+/- indicate the direction of bias).
R - Rejected due to serious deficiencies in meeting QC criteria.
Non-detects reported as < MDL.

Table 1

PFAS Surface Soil Results
Enbridge Superior Terminal (BRRTS# 02-16-589282)
Superior, Wisconsin

				Field ID:	PR-TK19- HA01(0-6)	PR-TK20- HA01(0-6)	PR-TK21- HA01(0-6)	PR-TK22- HA01(0-6)	PR-TK23- HA01(0-6)	PR-TK24- HA01(0-6)	PR-TK25- HA01(0-6)	PR-TK26- HA01(0-6)	PR-TK27- HA01(0-6)	PR-TK28- HA01(0-6)	PR-TK29- HA01(0-6)
				Sample Date:	7/5/2022	7/5/2022	7/6/2022	7/5/2022	7/5/2022	7/5/2022	7/6/2022	7/6/2022	7/6/2022	7/6/2022	7/6/2022
Abbr	Analyte	Cas Number	Units												
Carboxylic Acids:															
PFBA	Perfluorobutanoic acid	375-22-4	ug/kg	0.19	0.27	0.093	0.24	0.049 J	0.32	0.41	0.11	< 0.027	0.13	0.11	
PFPeA	Perfluoropentanoic acid	2706-90-3	ug/kg	0.9	1.5	0.24	0.49	0.17	1.2	1.7	0.42	0.09 J	0.041 J	0.03 J	
PFHxA	Perfluorohexanoic acid	307-24-4	ug/kg	0.25	0.5	0.13	0.27	0.11	0.49	1.1	0.2	0.045 J	0.046 J	0.029 J	
PFHpA	Perfluoroheptanoic acid	375-85-9	ug/kg	0.14	0.21	0.13	0.3	0.13	0.43	0.34	0.098	< 0.033	0.073 J	0.047 J	
PFOA	Perfluorooctanoic acid	335-67-1	ug/kg	0.15	0.35	0.18	0.33	0.17	0.54	0.57	0.16	0.035 J	0.22	0.069 J	
PFNA	Perfluorononoic acid	375-95-1	ug/kg	0.13	0.18	0.19	0.26	0.17	0.38	0.36	0.13	0.053 J	0.1	0.074 J	
PFDA	Perfluorodecanoic acid	335-76-2	ug/kg	0.11	0.23	0.62	0.74	0.5	0.81	1.4	0.52	0.077 J	0.054 J	0.06 J	
PFUnA	Perfluoroundecanoic acid	2058-94-8	ug/kg	< 0.029	0.081 J	0.48	0.52	0.32 J	0.28	1	0.098	< 0.029	0.063 J	0.062 J	
PFDaA	Perfluorododecanoic acid	307-55-1	ug/kg	< 0.031	< 0.032	0.22	0.24	0.14	0.19	1.5	0.037 J	< 0.032	< 0.032	< 0.03	
PFTriDA	Perfluorotridecanoic acid	72629-94-8	ug/kg	< 0.03	< 0.031	0.041 J	0.059 J	0.057 J	0.059 J	0.33	< 0.03	< 0.031	< 0.031	< 0.029	
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ug/kg	< 0.033	< 0.034	0.042 J	< 0.032	< 0.033	0.044 J	0.72	< 0.032	< 0.033	< 0.033	< 0.031	
Sulfonic Acids:															
PFBS	Perfluorobutanesulfonic acid	375-73-5	ug/kg	< 0.025	< 0.026	< 0.024	< 0.025	< 0.025	< 0.024	0.077 J	< 0.025	< 0.025	< 0.025	0.024 J	
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ug/kg	< 0.023	< 0.024	< 0.022	< 0.023	< 0.023	< 0.022	0.16	0.033 J	< 0.023	< 0.023	< 0.022	
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ug/kg	< 0.021	0.089 J	0.035 J	< 0.021	0.13	0.28	1.9	0.33	< 0.021	< 0.021	< 0.02	
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ug/kg	< 0.026	< 0.027	< 0.026	< 0.026	< 0.027	0.044 J	0.32	< 0.026	< 0.027	< 0.027	< 0.025	
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ug/kg	0.37	1.2	0.69	0.82	2.7	18	45	2	0.16	0.29	0.26	
PFNS	Perfluorononanesulfonic acid	68259-12-1	ug/kg	< 0.033	< 0.034	< 0.032	< 0.033	< 0.033	0.15	0.4	< 0.033	< 0.033	< 0.033	< 0.031	
PFDS	Perfluorodecanesulfonic acid	335-77-3	ug/kg	< 0.027	< 0.028	< 0.026	< 0.027	< 0.027	0.06 J	0.64	< 0.027	< 0.027	< 0.027	< 0.025	
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ug/kg	< 0.025	< 0.026	< 0.024	< 0.025	< 0.025	< 0.024	0.055 J	< 0.025	< 0.025	< 0.025	< 0.023	
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ug/kg	< 0.022	< 0.023	< 0.021	< 0.022	< 0.022	< 0.021	< 0.021	< 0.022	< 0.022	< 0.022	< 0.021	
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ug/kg	0.86	0.18	0.052 J	0.099	< 0.04	0.091	9.2	0.72	< 0.04	< 0.04	< 0.037	
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ug/kg	0.65	0.13	0.28	1.3	0.35 J	1.9	12	0.12	< 0.042	< 0.042	< 0.04	
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:															
PFOSA	Perfluorooctane sulfonamide	754-91-6	ug/kg	< 0.028	< 0.029	< 0.027	< 0.028	< 0.028	0.33	1.4	< 0.028	< 0.028	< 0.028	< 0.026	
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ug/kg	< 0.026 UR	< 0.027 UR	< 0.025 UR	< 0.026 UR	< 0.026	< 0.025 UR	< 0.024 UR	< 0.026 UR	< 0.026 UR	< 0.026 UR	< 0.024 UR	
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ug/kg	< 0.024 UR	< 0.025 UR	< 0.024 UR	< 0.024 UR	< 0.025	< 0.023 UR	< 0.023 UR	< 0.024 UR	< 0.025 UR	< 0.025 UR	0.3 R	
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ug/kg	< 0.027	< 0.028	< 0.026	< 0.026	< 0.027	< 0.025	0.1	< 0.027	< 0.027	< 0.027	< 0.025	
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ug/kg	< 0.038	< 0.039	< 0.037	< 0.038	< 0.039	< 0.036	0.12	< 0.038	< 0.038	< 0.039	< 0.036	
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ug/kg	< 0.029 UR	< 0.03 UR	< 0.028	< 0.029	< 0.029	< 0.027	< 0.027	< 0.029 UR	< 0.029	< 0.029 UR	< 0.027 UR	
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ug/kg	< 0.031 UR	< 0.032 UR	< 0.03	< 0.03	< 0.031	< 0.029	0.069 J	< 0.03 UR	< 0.031	< 0.031 UR	< 0.029 UR	
Replacement Chemicals:															
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ug/kg	< 0.026	< 0.027	< 0.026	< 0.026	< 0.027	< 0.025	< 0.025	< 0.026	< 0.027	< 0.027	< 0.025	
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ug/kg	< 0.034	< 0.036	< 0.033	< 0.034	< 0.035	< 0.033	< 0.032	< 0.034	< 0.035	< 0.035	< 0.033	
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ug/kg	< 0.024	< 0.025	< 0.023	< 0.024	< 0.024	< 0.023	< 0.022	< 0.024	< 0.024	< 0.024	< 0.023	
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ug/kg	< 0.024	< 0.025	< 0.023	< 0.024	< 0.024	< 0.023	< 0.022	< 0.024	< 0.024	< 0.024	< 0.023	

Note:
ug/kg - micrograms per kilogram.
J - Estimated concentration (+/- indicate the direction of bias).
R - Rejected due to serious deficiencies in meeting QC criteria.
Non-detects reported as < MDL.

Table 1

PFAS Surface Soil Results
 Enbridge Superior Terminal (BRRTS# 02-16-589282)
 Superior, Wisconsin

				Field ID: NR 720 Residual Contaminant Levels		
				Sample Date:		
Abbr	Analyte	Cas Number	Units	Non-Industrial Direct Contact	Industrial Direct Contact	Soil to Groundwater Pathway
Carboxylic Acids:						
PFBA	Perfluorobutanoic acid	375-22-4	ug/kg	--	--	--
PFPeA	Perfluoropentanoic acid	2706-90-3	ug/kg	--	--	--
PFHxA	Perfluorohexanoic acid	307-24-4	ug/kg	--	--	--
PFHpA	Perfluoroheptanoic acid	375-85-9	ug/kg	--	--	--
PFOA	Perfluorooctanoic acid	335-67-1	ug/kg	1,260	16,400	--
PFNA	Perfluorononanoic acid	375-95-1	ug/kg	--	--	--
PFDA	Perfluorodecanoic acid	335-76-2	ug/kg	--	--	--
PFUnA	Perfluoroundecanoic acid	2058-94-8	ug/kg	--	--	--
PFDoA	Perfluorododecanoic acid	307-55-1	ug/kg	--	--	--
PFTriDA	Perfluorotridecanoic acid	72629-94-8	ug/kg	--	--	--
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ug/kg	--	--	--
Sulfonic Acids:						
PFBS	Perfluorobutanesulfonic acid	375-73-5	ug/kg	1,260,000	16,400,000	--
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ug/kg	--	--	--
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ug/kg	--	--	--
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ug/kg	--	--	--
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ug/kg	1,260	16,400	--
PFNS	Perfluorononanesulfonic acid	68259-12-1	ug/kg	--	--	--
PFDS	Perfluorodecanesulfonic acid	335-77-3	ug/kg	--	--	--
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ug/kg	--	--	--
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ug/kg	--	--	--
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ug/kg	--	--	--
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ug/kg	--	--	--
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:						
PFOSA	Perfluorooctane sulfonamide	754-91-6	ug/kg	--	--	--
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ug/kg	--	--	--
NEFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ug/kg	--	--	--
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ug/kg	--	--	--
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ug/kg	--	--	--
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ug/kg	--	--	--
NEFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ug/kg	--	--	--
Replacement Chemicals:						
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ug/kg	--	--	--
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ug/kg	--	--	--
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ug/kg	--	--	--
11Cl-PF3OUs	11-chloroheptafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ug/kg	--	--	--

Note:
 ug/kg - micrograms per kilogram.
 J - Estimated concentration (+/- indicate the direction of bias).
 R - Rejected due to serious deficiencies in meeting QC criteria.
 Non-detects reported as < MDL.

Table 2

PFAS Field QC Blank Results
Enbridge Superior Terminal (BRRTS# 02-16-589282)
Superior, Wisconsin

				Field ID:	PR-FB-01	PR-Decon-01	PR-ERB-01	PR-ERB-02
				Sample Date:	7/6/2022	7/6/2022	7/6/2022	7/7/2022
Abbr	Analyte	Cas Number	Units					
Carboxylic Acids:								
PFBA	Perfluorobutanoic acid	375-22-4	ng/L	< 0.43	9.2	< 0.43	< 0.42	< 0.42
PFPeA	Perfluoropentanoic acid	2706-90-3	ng/L	< 0.43	1.3 J	< 0.42	< 0.42	< 0.42
PFHxA	Perfluorohexanoic acid	307-24-4	ng/L	< 0.43	1.4 J	< 0.42	< 0.42	< 0.42
PFHpA	Perfluoroheptanoic acid	375-85-9	ng/L	< 0.54	0.97 J	< 0.53	< 0.53	< 0.53
PFOA	Perfluorooctanoic acid	335-67-1	ng/L	< 0.57	1.2 J	< 0.56	< 0.56	< 0.56
PFNA	Perfluorononanoic acid	375-95-1	ng/L	< 0.72	< 0.72	< 0.71	< 0.71	< 0.71
PFDA	Perfluorodecanoic acid	335-76-2	ng/L	< 0.55	< 0.55	< 0.54	< 0.54	< 0.54
PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/L	< 0.53	< 0.52	< 0.52	< 0.52	< 0.52
PFDoA	Perfluorododecanoic acid	307-55-1	ng/L	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
PFTriDA	Perfluorotridecanoic acid	72629-94-8	ng/L	< 0.61	< 0.6	< 0.6	< 0.6	< 0.59
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ng/L	< 0.46	< 0.46	< 0.46	< 0.46	< 0.45
Sulfonic Acids:								
PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/L	< 0.46	0.98 J	< 0.46	< 0.45	< 0.45
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/L	< 0.46	< 0.46	< 0.46	< 0.45	< 0.45
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ng/L	< 0.5	< 0.49	< 0.49	< 0.49	< 0.49
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/L	< 0.4	< 0.4	< 0.4	< 0.39	< 0.39
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/L	< 0.53	< 0.53	< 0.53	< 0.52	< 0.52
PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/L	< 0.44	< 0.43	< 0.43	< 0.43	< 0.43
PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/L	< 0.44	< 0.43	< 0.43	< 0.43	< 0.43
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/L	< 0.45	< 0.44	< 0.44	< 0.44	< 0.44
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/L	< 0.54	< 0.54	< 0.54	< 0.53	< 0.53
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/L	< 0.63	< 0.62	< 0.62	< 0.62	< 0.62
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/L	< 0.64	< 0.63	< 0.63	< 0.62	< 0.62
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:								
PFOSA	Perfluorooctane sulfonamide	754-91-6	ng/L	< 0.8	< 0.79	< 0.79	< 0.78	< 0.78
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/L	< 0.5 UR	< 0.49 UR	< 0.49	< 0.49	< 0.49
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/L	< 0.59 UR	< 0.59 UR	< 0.59	< 0.58	< 0.58
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/L	< 0.42	< 0.42	< 0.42	< 0.41	< 0.41
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/L	< 0.54	< 0.54	< 0.53	< 0.53	< 0.53
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/L	< 0.32	< 0.32	< 0.32	< 0.31	< 0.31
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/L	< 0.48	< 0.48	< 0.48	< 0.47	< 0.47
Replacement Chemicals:								
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/L	< 0.52	< 0.51	< 0.51	< 0.51	< 0.51
DONA	4,8-dioxo-3H-perfluorononanoic acid	919005-14-4	ng/L	< 0.5	< 0.5	< 0.5	< 0.49	< 0.49
9CI-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/L	< 0.3	< 0.29	< 0.29	< 0.29	< 0.29
11CI-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/L	< 0.43	< 0.42	< 0.42	< 0.42	< 0.42

Note:
ug/L - micrograms per liter.
J - Estimated concentration (+/- indicate the direction of bias).
Non-detects reported as < MDL.

Table 3

PFAS Soil Boring Results
Enbridge Superior Terminal (BRRTS# 02-16-589282)
Superior, Wisconsin

				Field ID:	PR- AFFExcavation- SB01(14-15)	PR- AFFExcavation- SB01(17-17.5)	NR 720 Residual Contaminant Levels		
				Sample Date:	8/3/2022	8/3/2022	Non-Industrial Direct Contact	Industrial Direct Contact	Soil to Groundwater Pathway
Abbr	Analyte	Cas Number	Units						
Carboxylic Acids:									
PFBA	Perfluorobutanoic acid	375-22-4	ug/kg	< 0.043	< 0.041	--	--	--	--
PFPeA	Perfluoropentanoic acid	2706-90-3	ug/kg	< 0.044	< 0.041	--	--	--	--
PFHxA	Perfluorohexanoic acid	307-24-4	ug/kg	< 0.042	< 0.04	--	--	--	--
PFHpA	Perfluoroheptanoic acid	375-85-9	ug/kg	< 0.053	< 0.05	--	--	--	--
PFOA	Perfluorooctanoic acid	335-67-1	ug/kg	< 0.047	< 0.045	1,260	16,400	--	--
PFNA	Perfluorononanoic acid	375-95-1	ug/kg	< 0.047	< 0.045	--	--	--	--
PFDA	Perfluorodecanoic acid	335-76-2	ug/kg	< 0.035	< 0.033	--	--	--	--
PFUnA	Perfluoroundecanoic acid	2058-94-8	ug/kg	< 0.046	< 0.044	--	--	--	--
PFDoA	Perfluorododecanoic acid	307-55-1	ug/kg	< 0.05	< 0.048	--	--	--	--
PFTTrDA	Perfluorotridecanoic acid	72629-94-8	ug/kg	< 0.049	< 0.046	--	--	--	--
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ug/kg	< 0.052	< 0.05	--	--	--	--
Sulfonic Acids:									
PFBS	Perfluorobutanesulfonic acid	375-73-5	ug/kg	< 0.04	< 0.038	1,260,000	16,400,000	--	--
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ug/kg	< 0.037	< 0.035	--	--	--	--
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ug/kg	< 0.033	< 0.032	--	--	--	--
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ug/kg	< 0.042	< 0.04	--	--	--	--
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ug/kg	< 0.045	< 0.043	1,260	16,400	--	--
PFNS	Perfluorononanesulfonic acid	68259-12-1	ug/kg	< 0.053	< 0.05	--	--	--	--
PFDS	Perfluorodecanesulfonic acid	335-77-3	ug/kg	< 0.043	< 0.041	--	--	--	--
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ug/kg	< 0.04	< 0.038	--	--	--	--
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ug/kg	< 0.035	< 0.033	--	--	--	--
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ug/kg	< 0.063	< 0.06	--	--	--	--
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ug/kg	< 0.067	< 0.063	--	--	--	--
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols:									
PFOSA	Perfluorooctane sulfonamide	754-91-6	ug/kg	< 0.045	< 0.043	--	--	--	--
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ug/kg	< 0.042 UR	< 0.039 UR	--	--	--	--
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ug/kg	< 0.039 UR	< 0.037 UR	--	--	--	--
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ug/kg	< 0.043	< 0.041	--	--	--	--
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ug/kg	< 0.061	< 0.058	--	--	--	--
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ug/kg	< 0.046 UR	< 0.044 UR	--	--	--	--
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ug/kg	< 0.049 UR	< 0.047 UR	--	--	--	--
Replacement Chemicals:									
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ug/kg	< 0.042	< 0.04	--	--	--	--
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ug/kg	< 0.055	< 0.053	--	--	--	--
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ug/kg	< 0.038	< 0.036	--	--	--	--
11Cl-PF3OUds	11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ug/kg	< 0.039	< 0.037	--	--	--	--

Note:
ug/kg - micrograms per kilogram.
J - Estimated concentration (+/- indicate the direction of bias).
R - Rejected due to serious deficiencies in meeting QC criteria.
Non-detects reported as < MDL.

Table 4

PFAS Field QC Blank Results
Enbridge Superior Terminal (BRRTS# 02-16-589282)
Superior, Wisconsin

					Field ID:	PR-FB-02	PR-DECON-02	PR-ERB-03
					Sample Date:	8/3/2022	8/3/2022	8/3/2022
Abbr		Analyte	Cas Number	Units				
Carboxylic Acids:								
PFBA	PFBA	Perfluorobutanoic acid	375-22-4	ng/L	< 0.42	< 0.44	< 0.43	
PFPeA	PFPeA	Perfluoropentanoic acid	2706-90-3	ng/L	< 0.42	< 0.44	< 0.42	
PFHxA	PFHxA	Perfluorohexanoic acid	307-24-4	ng/L	< 0.42	< 0.44	< 0.42	
PFHpA	PFHpA	Perfluoroheptanoic acid	375-85-9	ng/L	< 0.52	< 0.55	< 0.53	
PFOA	PFOA	Perfluorooctanoic acid	335-67-1	ng/L	< 0.56	< 0.58	< 0.56	
PFNA	PFNA	Perfluorononanoic acid	375-95-1	ng/L	< 0.71	< 0.74	< 0.71	
PFDA	PFDA	Perfluorodecanoic acid	335-76-2	ng/L	< 0.54	< 0.56	< 0.54	
PFUnA	PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/L	< 0.51	< 0.54	< 0.52	
PFDoA	PFDoA	Perfluorododecanoic acid	307-55-1	ng/L	< 0.46	< 0.48	< 0.47	
PFTTrDA	PFTTrDA	Perfluorotridecanoic acid	72629-94-8	ng/L	< 0.59	< 0.62	< 0.60	
PFTeDA	PFTeDA	Perfluorotetradecanoic acid	376-06-7	ng/L	< 0.45	< 0.47	< 0.46	
Sulfonic Acids:								
PFBS	PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/L	< 0.45	< 0.47	< 0.46	
PFPeS	PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/L	< 0.45	< 0.47	< 0.46	
PFHxS	PFHxS	Perfluorohexanesulfonic acid	355-46-4	ng/L	< 0.48	< 0.51	< 0.49	
PFHpS	PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/L	< 0.39	< 0.41	< 0.40	
PFOS	PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/L	< 0.52	< 0.55	< 0.53	
PFNS	PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/L	< 0.43	< 0.44	< 0.43	
PFDS	PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/L	< 0.43	< 0.45	< 0.43	
PFDoS	PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/L	< 0.44	< 0.46	< 0.44	
4:2 FTS	4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/L	< 0.53	< 0.56	< 0.54	
6:2 FTS	6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/L	< 0.62	< 0.64	< 0.62	
8:2 FTS	8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/L	< 0.62	< 0.65	< 0.63	
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:								
PFOSA	PFOSA	Perfluorooctane sulfonamide	754-91-6	ng/L	< 0.78	< 0.81	< 0.79	
NMeFOSA	NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/L	< 0.49	< 0.51 UR	< 0.49	
NEtFOSA	NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/L	< 0.58	< 0.60 UR	< 0.59	
MeFOSAA	MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/L	< 0.41	< 0.43	< 0.42	
EtFOSAA	EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/L	< 0.53	< 0.55	< 0.54	
NMeFOSE	NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/L	< 0.31	< 0.33 UR	< 0.32	
NEtFOSE	NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/L	< 0.47	< 0.49 UR	< 0.48	
Replacement Chemicals:								
HFPO-DA	HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/L	< 0.50	< 0.53	< 0.51	
DONA	DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ng/L	< 0.49	< 0.51	< 0.50	
9CI-PF3ONS	9CI-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/L	< 0.29	< 0.30	< 0.29	
11CI-PF3OUdS	11CI-PF3OUdS	11-chloroeicosfluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/L	< 0.42	< 0.43	< 0.42	

Note:
ug/L - micrograms per liter.
R - Rejected due to serious deficiencies in meeting QC criteria.
Non-detects reported as < MDL.

Report Prepared for:

Leo Linnemanstons
AECOM
1555 N. RiverCenter Drive
Milwaukee WI 53212

**REPORT OF
LABORATORY
ANALYSIS
FOR PFAAs**

Report Prepared Date:

August 19, 2022

Report Information:

Pace Project #: 10616212

Sample Receipt Date: 07/08/2022

Client Project #: Superior Terminal PFAS-60683

Client Sub PO #: 145286

State Cert #: 999407970

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PFAA Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Kirsten Hogberg, your Pace Project Manager.

This report has been reviewed by:



August 22, 2022

Kirsten Hogberg, Project Manager

(612) 607-6407

(612) 607-6444 (fax)

kirsten.hogberg@pacelabs.com



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.

DISCUSSION

This report presents the results from the analyses performed on thirty-five samples submitted by a representative of AECOM. The samples were analyzed for thirty-three perfluorinated compounds using Wisconsin DNR guidance for PFAS. Reporting limits were set to MDL levels. Report was revised to correct data for "PR-Building B-HA01(0-6)". This report was revised August 19, 2022 to update the unit format.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank was free of the target perfluorinated compounds at the reporting limits. This indicates that the sample processing procedures did not significantly contribute to the analyte content determined for the sample material.

Laboratory spike samples and matrix spike samples were also prepared with the sample batch using clean reference matrix or sample material that had been fortified with native standards. The recovery results were within the method limits. The RPDs (relative percent differences) between one designated spike and its duplicate were within the method limits. These spikes indicate that extraction performed as expected.

Diminished extracted internal standard (EIS) recovery ("R" flagged) were present in samples, however, the use of the isotope dilution method generally precludes any adverse impact on those individual native compounds that have a directly associated standard.

Several samples have recoveries less than 1% for selected EIS. The results for these native compounds should be considered estimated.

The four injection internal standards (13C4 PFOA, 13C4 PFOS, 13C2_PFDA, and 13C2_PFHxA) pass for each analysis in the batch verifying that the instrument detector is working as expected.

Results for selected analytes were taken from secondary dilutions of the sample extracts in order to bring the results within the calibration range. The affected values were flagged "D" on the results tables.

Results for t that were below the calibration range were flagged "J". Values were flagged "I" where incorrect isotope ratios were obtained.

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Mississippi	MN00064
Alabama	40770	Missouri	10100
Alaska-DW	MN00064	Montana	CERT0092
Alaska-UST	17-009	Nebraska	NE-OS-18-06
Arizona	AZ0014	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
Arkansas-DW	MN00064	New Jersey	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina-	27700
Connecticut	PH-0256	North Carolina-	530
Florida	E87605	North Dakota	R-036
Georgia	959	Ohio-DW	41244
Hawaii	MN00064	Ohio-VAP (170	CL101
Idaho	MN00064	Ohio-VAP (180	CL110
Illinois	200011	Oklahoma	9507
Indiana	C-MN-01	Oregon- rimary	MN300001
Iowa	368	Oregon-Second	MN200001
Kansas	E-10167	Pennsylvania	68-00563
Kentucky-DW	90062	Puerto Rico	MN00064
Kentucky-WW	90062	South Carolina	74003
Louisiana-DEQ	AI-84596	Tennessee	TN02818
Louisiana-DW	MN00064	Texas	T104704192
Maine	MN00064	Utah	MN00064
Maryland	322	Vermont	VT-027053137
Michigan	9909	Virginia	460163
Minnesota	027-053-137	Washington	C486
Minnesota-Ag	via MN 027-053	West Virginia-D	382
Minnesota-Petr	1240	West Virginia-D	9952C
		Wisconsin	999407970
		Wyoming-UST	via A2LA 2926.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444
www.pacelabs.com

Appendix A

Sample Management

REPORT OF LABORATORY ANALYSIS

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Sample ID Cross Reference

<u>Client Sample ID</u>	<u>Pace Sample ID</u>	<u>Date Received</u>	<u>Sample Type</u>
PR-TK01-HA01(0-6)	10616212001	07/08/2022	Solid
PR-TK02-HA01(0-6)	10616212002	07/08/2022	Solid
PR-TK03-HA01(0-6)	10616212003	07/08/2022	Solid
PR-TK04-HA01(0-6)	10616212004	07/08/2022	Solid
PR-TK05-HA01(0-6)	10616212005	07/08/2022	Solid
PR-TK06-HA01(0-6)	10616212006	07/08/2022	Solid
PR-TK07-HA01(0-6)	10616212007	07/08/2022	Solid
PR-TK08-HA01(0-6)	10616212008	07/08/2022	Solid
PR-TK09-HA01(0-6)	10616212009	07/08/2022	Solid
PR-TK10-HA01(0-6)	10616212010	07/08/2022	Solid
PR-TK11-HA01(0-6)	10616212011	07/08/2022	Solid
PR-TK12-HA01(0-6)	10616212012	07/08/2022	Solid
PR-TK13-HA01(0-6)	10616212013	07/08/2022	Solid
PR-TK14-HA01(0-6)	10616212014	07/08/2022	Solid
PR-TK15-HA01(0-6)	10616212015	07/08/2022	Solid
PR-TK16-HA01(0-6)	10616212016	07/08/2022	Solid
PR-TK17-HA01(0-6)	10616212017	07/08/2022	Solid
PR-TK18-HA01(0-6)	10616212018	07/08/2022	Solid
PR-TK19-HA01(0-6)	10616212019	07/08/2022	Solid
PR-TK20-HA01(0-6)	10616212020	07/08/2022	Solid
PR-TK21-HA01(0-6)	10616212021	07/08/2022	Solid
PR-TK22-HA01(0-6)	10616212022	07/08/2022	Solid
PR-TK23-HA01(0-6)	10616212023	07/08/2022	Solid
PR-TK24-HA01(0-6)	10616212024	07/08/2022	Solid
PR-TK25-HA01(0-6)	10616212025	07/08/2022	Solid
PR-TK26-HA01(0-6)	10616212026	07/08/2022	Solid
PR-TK27-HA01(0-6)	10616212027	07/08/2022	Solid
PR-TK28-HA01(0-6)	10616212028	07/08/2022	Solid
PR-TK29-HA01(0-6)	10616212029	07/08/2022	Solid
PR-Building A-HA01(0-6)	10616212030	07/08/2022	Solid
PR-Building B-HA01(0-6)	10616212031	07/08/2022	Solid
PR-ERB-01	10616212032	07/08/2022	Water
PR-Decon-01	10616212033	07/08/2022	Water
PR-FB-01	10616212034	07/08/2022	Water
PR-ERB-02	10616212035	07/08/2022	Water

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CHAIN-OF-CUSTODY Analytical Request Document

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

Company: **AECOM**

Billing Information: **Bill to AECOM**

Address: **230 W. Superior St. STE 411, Duluth, MN 55802**

Report To: **leo.linnemanstons@aecom.com**

Email To:

Copy To: **darin.albrecht@aecom.com**

Site Collection Info/Address: **Enbridge Superior Terminal**

Customer Project Name/Number: **Superior Terminal PFAS/606BS192**

State: **WI** County/City: **Superior** Time Zone Collected: **[] PT [] MT [X] CT [] ET**

Phone: **608-828-8268**

Site/Facility ID #: **Enbridge Superior Terminal**

Compliance Monitoring? **[] Yes [] No**

Email: **see above**

Purchase Order #: **145286**

DW PWS ID #:
 DW Location Code:

Collected By (print): **Will Montz**

Turnaround Date Required: **Standard**

Immediately Packed on Ice: **[X] Yes [] No**

Collected By (signature): **Will Montz**

Rush: **[] Same Day [] Next Day [] 2 Day [] 3 Day [] 4 Day [] 5 Day (Expedite Charges Apply)**

Field Filtered (if applicable): **[] Yes [X] No**

Sample Disposal: **[X] Dispose as appropriate [] Return**

Analysis:

Analysis:

[] Archive:
 [] Hold:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
PR-TK01-HA01(0-6)	SL	G	7/6/22	0735				1
PR-TK02-HA01(0-6)	SL	G	7/6/22	0805				1
PR-TK03-HA01(0-6)	SL	G	7/6/22	1405				1
PR-TK04-HA01(0-6)	SL	G	7/6/22	1415				1
PR-TK05-HA01(0-6)	SL	G	7/6/22	1040				1
PR-TK06-HA01(0-6)	SL	G	7/6/22	1110				1
PR-TK07-HA01(0-6)	SL	G	7/6/22	1125				1
PR-TK08-HA01(0-6)	SL	G	7/6/22	1250				1
PR-TK09-HA01(0-6)	SL	G	7/6/22	1350				1
PR-TK10-HA01(0-6)	SL	G	7/6/22	1340				1

WIS 1D36 (PFAS)

LAB USE ONLY- Affix Workorder/

WO#: 10616212



ALL SHADED

Container Preservative Type **

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line: **H4709**

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles:	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY: Lab Sample # / Comments:

001
002
003
004
005
006
007
008
009
010

Customer Remarks / Special Conditions / Possible Hazards: **1 cooler**

Type of Ice Used: **Wet Blue Dry None**

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

Packing Material Used:

Lab Tracking #: **2798067**

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

Samples received via: **FEDEX UPS Client Courier Pace Courier**

Lab Sample Temperature Info:
Temp Blank Received: **Y N NA**
Therm ID#:
Cooler 1 Temp Upon Receipt: **4.3** oC
Cooler 1 Therm Corr. Factor: **1.2** oC
Cooler 1 Corrected Temp: **4.4** oC
Comments:

Relinquished by/Company: (Signature) **Will Montz AECOM**

Date/Time: **7/7/22 1615**

Received by/Company: (Signature) **[Signature]**

Date/Time: **7/7/22 1615**

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature) **[Signature]**

Date/Time: **18-45**

PM:
PB:

Trip Blank Received: **Y N NA**
HCL MeOH TSP Other

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

PM:
PB:

Non Conformance(s): **1**
YES / NO
Page: **1**
of: **4**

Report No: 10616212_1D36_KT_DJK

REVISION:

Date/Time:



CHAIN-OF-CUSTODY Analytical Request Document

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

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

ALL SHADED AREAS are for LAB USE ONLY

Company: **AECOM**

Billing Information: **Bill to AECOM**

Address: **230W Superior St. Suite 411 Duluth MN 55802**

Report To: **Leo Linnemanstons**

Email To: **Leo.linnemanstons@aecom.com**

Copy To: **Dann.albrecht@aecom.com**

Site Collection Info/Address: **Enbridge Superior Terminal**

Customer Project Name/Number: **Superior Terminal PFAS / 401633192**

State: **WI** County/City: **Superior** Time Zone Collected: **[] PT [] MT [X] CT [] ET**

Phone: **408828 8208**

Site/Facility ID #: **standarda**

Compliance Monitoring? **[] Yes [] No**

Collected By (print): **Will Montz**

Purchase Order #: **145286**

DW PWS ID #:

Collected By (signature): **Will Montz**

Turnaround Date Required: **standarda**

Immediately Packed on Ice: **[X] Yes [] No**

Sample Disposal: **[X] Dispose as appropriate [] Return [] Archive: [] Hold:**

Rush: **[] Same Day [] Next Day [] 2 Day [] 3 Day [] 4 Day [] 5 Day (Expedite Charges Apply)**

Field Filtered (if applicable): **[] Yes [X] No**

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
PR-TK11-HA01(O-6)	SL	G	-	-	7-6-22	1330		1
PR-TK12-HA01(O-6)	SL	G	-	-	7-6-22	1320		1
PR-TK13-HA01(O-6)	SL	G	-	-	7-5-22	1320		1
PR-TK14-HA01(O-6)	SL	G	-	-	7-5-22	1340		1
PR-TK15-HA01(O-6)	SL	G	-	-	7-5-22	1355		1
PR-TK16-HA01(O-6)	SL	G	-	-	7-5-22	1455		1
PR-TK17-HA01(O-6)	SL	G	-	-	7-5-22	1440		1
PR-TK18-HA01(O-6)	SL	G	-	-	7-5-22	1425		1
PR-TK19-HA01(O-6)	SL	G	-	-	7-5-22	1410		1
PR-TK20-HA01(O-6)	SL	G	-	-	7-5-22	1515		1

Container Preservative Type **

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line: **44709**

WIS ID30 (PFAS)

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA

Custody Signatures Present Y N NA

Collector Signature Present Y N NA

Bottles Intact Y N NA

Correct Bottles Y N NA

Sufficient Volume Y N NA

Samples Received on Ice Y N NA

VOA - Headspace Acceptable Y N NA

USDA Regulated Soils Y N NA

Samples in Holding Time Y N NA

Residual Chlorine Present Y N NA

Cl Strips: _____

Sample pH Acceptable Y N NA

pH Strips: _____

Sulfide Present Y N NA

Lead Acetate Strips: _____

LAB USE ONLY: Lab Sample # / Comments:

011
012
013
014
015
016
017
018
019
020

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

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

Packing Material Used:

Lab Tracking #: **2798066**

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

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:

Temp Blank Received: Y **(N)** NA

Therm ID#: **17**

Cooler 1 Temp Upon Receipt: **4.3** oC

Cooler 1 Therm Corr. Factor: **10-1** oC

Cooler 1 Corrected Temp: **4.4** oC

Comments:

Relinquished by/Company: (Signature) **Will Montz AECOM**

Date/Time: **7/7/22 1615**

Received by/Company: (Signature) **[Signature]**

Date/Time: **7/7/22 1615**

MTJL LAB USE ONLY

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature) **[Signature]**

Date/Time: **18:45**

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: Y N NA

HCL MeOH TSP Other

Non Conformance(s): YES / NO Page: **2** of: **4**

Report No: 10616212_ID30_KT_DJR

REVISION 1

Page 7 of 194

CHAIN-OF-CUSTODY Analytical Request Document

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

Company: **AECOM** Billing Information: **Bill to AECOM**

Address: **230 W Superior St. STE 411 Duluth, MN 55802**

Report To: **leo.linnemanstans@aecom.com** Email To: **← same**

Copy To: **carin.albrecht@aecom.com** Site Collection Info/Address: **Superior Terminal**

Customer Project Name/Number: **Superior Terminal PFAS/60683192** State: **WI** County/City: **Superior** Time Zone Collected: **[] PT [] MT [X] CT [] ET**

Phone: **608-929-9208** Site/Facility ID #: **Enbridge Superior Terminal** Compliance Monitoring? **[] Yes [] No**

Email: **see above** Purchase Order #: **145286** DW PWS ID #: DW Location Code:

Collected By (print): **Will Monte** Turnaround Date Required: **Standard** Immediately Packed on Ice: **[X] Yes [] No**

Collected By (signature): **Will Monte** Rush: **[] Same Day [] Next Day** Field Filtered (if applicable): **[] Yes [X] No**

Sample Disposal: **[X] Dispose as appropriate [] Return** [] Archive: [] Hold: Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
PR-TK21-HA01 (0-6)	SL	G	7/6/22	0915				1 X
PR-TK22-HA01 (0-6)	SL	G	7/5/22	1540				1 X
PR-TK23-HA01 (0-6)	SL	G	7/5/22	1600				1 X
PR-TK24-HA01 (0-6)	SL	G	7/5/22	1615				1 X
PR-TK25-HA01 (0-6)	SL	G	7/6/22	1305				1 X
PR-TK26-HA01 (0-6)	SL	G	7/6/22	0850				1 X
PR-TK27-HA01 (0-6)	SL	G	7/6/22	0830				1 X
PR-TK28-HA01 (0-6)	SL	G	7/6/22	1505				1 X
PR-TK29-HA01 (0-6)	SL	G	7/6/22	1515				1 X
PR-Building A-HA01 (0-6)	SL	G	7/6/22	1450				1 X

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

ALL SHADED AREAS are for LAB USE ONLY

Container Preservative Type ** **U** Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses	Lab Profile/Line: 41109	Lab Sample Receipt Checklist:	
		Y	NA
		Custody Seals Present/Intact	Y N NA
		Custody Signatures Present	Y N NA
		Collector Signature Present	Y N NA
		Bottles Intact	Y N NA
		Correct Bottles	Y N NA
		Sufficient Volume	Y N NA
		Samples Received on Ice	Y N NA
		VOA - Headspace Acceptable	Y N NA
		USDA Regulated Soils	Y N NA
		Samples in Holding Time	Y N NA
		Residual Chlorine Present	Y N NA
		Cl Strips:	
		Sample pH Acceptable	Y N NA
		pH Strips:	
		Sulfide Present	Y N NA
		Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards: Type of Ice Used: **Wet Blue Dry None** SHORT HOLDS PRESENT (<72 hours): **Y N N/A**

Packing Material Used: Lab Tracking #: **2798064**

Radchem sample(s) screened (<500 cpm): **Y N NA** Samples received via: **FEDEX UPS Client Courier Pace Courier**

Relinquished by/Company: (Signature) **Alan J Monte AECOM** Date/Time: **7/7/22 1615** Received by/Company: (Signature) **[Signature]** Date/Time: **7/7/22 1815**

Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature) **[Signature]** Date/Time: **18:46**

Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature) Date/Time:

Lab Sample Temperature Info:
Temp Blank Received: **Y (N) NA**
Therm ID#: **17**
Cooler 1 Temp Upon Receipt: **4.3** oC
Cooler 1 Therm Corr. Factor: **to 1** oC
Cooler 1 Corrected Temp: **4.1** oC
Comments:

Trip Blank Received: **Y N NA**
HCL MeOH TSP Other

Non Conformance(s): Page: **3**
YES / NO of: **4**

Revision: 1.0001
Report No: 10010212300
Date: 7/7/22



CHAIN-OF-CUSTODY Analytical Request Document

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

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

ALL SHADED AREAS are for LAB USE ONLY

Company: **AECOM** Billing Information: **Bill to AECOM**

Address: **230W Superior St Suite 411 Duluth MN 55802**

Report To: **Leo Linnemanstons** Email To: **leo.linnemanstons@aecom.com**

Copy To: **Dann Albrecht@aecom.com** Site Collection Info/Address: **Enbridge Superior Terminal**

Customer Project Name/Number: **Superior Terminal PFAS 12/18/2012** State: **WI / Superior** County/City: **WI / Superior** Time Zone Collected: **[] PT [] MT [X] CT [] ET**

Phone: **6088298208** Site/Facility ID #: **145286** Compliance Monitoring? **[] Yes [] No**

Email: **leo.linnemanstons@aecom.com** Purchase Order #: **145286** DW PWS ID #: **145286**

Collected By (print): **Will Montz** Quote #: **145286** DW Location Code: **145286**

Collected By (signature): **Will Montz** Turnaround Date Required: **Standard** Immediately Packed on Ice: **[X] Yes [] No**

Sample Disposal: **[X] Dispose as appropriate [] Return** Rush: **[] Same Day [] Next Day** Field Filtered (if applicable): **[] Yes [X] No**

[] Archive: [] 2 Day [] 3 Day [] 4 Day [] 5 Day Analysis: **PFAS**

[] Hold: [] 2 Day [] 3 Day [] 4 Day [] 5 Day (Expedite Charges Apply)

Container Preservative Type ** **U** Lab Project Manager: **U**

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses **WIS 1D30 (PFAS)** **WIS 1D30 (PFAS) Blanks**

Lab Profile/Line: **44709**

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:
Lab Sample # / Comments:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
PR-BuildingB-HAD10-W	SL	G	-	-	7-6-22	1435		1
PR-ERB-01	WT	G	-	-	7-6-22	0840		1
PR-Decan-01	WT	G	-	-	7-6-22	0955		1
PR-FB-01	WT	G	-	-	7-6-22	1000		1
PR-ERB-02	WT	G	-	-	7-7-22	1530		1

031

032

033

034

035

Customer Remarks / Special Conditions / Possible Hazards: **Wet Blue Dry None**

Type of Ice Used: **Wet Blue Dry None**

Packing Material Used: **Radchem sample(s) screened (<500 cpm): Y N NA**

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

Lab Tracking #: **2798063**

Samples received via: **FEDEX UPS Client Courier Pace Courier**

Lab Sample Temperature Info:

Temp Blank Received: **Y N NA**

Therm ID#: **1615**

Cooler 1 Temp Upon Receipt: **4.3** oC

Cooler 1 Therm Corr. Factor: **10.1** oC

Cooler 1 Corrected Temp: **4.4** oC

Comments:

Relinquished by/Company: (Signature) **Will Montz AECOM** Date/Time: **1615 7/7/22**

Received by/Company: (Signature) **[Signature]** Date/Time: **7/7/22 1615**

Relinquished by/Company: (Signature) **[Signature]** Date/Time: **1615 7-8-22**

Received by/Company: (Signature) **[Signature]** Date/Time: **12-45**

Relinquished by/Company: (Signature) **[Signature]** Date/Time: **[Signature]**

Received by/Company: (Signature) **[Signature]** Date/Time: **[Signature]**

MTJL LAB USE ONLY

Table #: **4**

Acctnum: **4**

Template: **4**

Prelogin: **4**

PM: **4**

PB: **4**

Trip Blank Received: **Y N NA**

HCL MeOH TSP Other

Non Conformance(s): **4**

YES / NO of: **4**



DC#_ Title: ENV-FRM-MIN4-0150 v05_Sample Condition Upon Receipt (SCUR)

Effective Date: 04/12/2022

Sample Condition Upon Receipt

Client Name:

Project #:

AECOM

WO#: 10616212

Courier:

- Fed Ex, UPS, USPS, Client, Pace, SpeeDee, Commercial

PM: KNH Due Date: 08/09/22 CLIENT: AECOM

Tracking Number:

See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No Biological Tissue Frozen? Yes No N/A

Packing Material: Bubble Wrap, Bubble Bags, None, Other Temp Blank? Yes No

Thermometer: T1-T6, T7, Type of Ice: Wet, Blue, None, Dry, Melted

Did Samples Originate in West Virginia? Were All Container Temps Taken?

Temp should be above freezing to 6°C Cooler Temp Read w/temp blank: Average Corrected Temp (no temp blank only): 5.6 °C

USDA Regulated Soil: N/A, water sample/Other: Date/Initials of Person Examining Contents: 7/9/22 AC

Table with 2 columns: Location (check one) and COMMENTS. Rows include Chain of Custody, Short Hold Time Analysis, Rush Turn Around Time, Field Filtered Volume, etc.

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: Date/Time: Field Data Required? Yes No

Project Manager Review: Kirsten Hojberg Date: 7/11/2022

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office...

Labeled by: [Signature]

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10616212001	PR-TK01-HA01(0-6)	SW3535	33503	PFAS-36	B220729B_04
10616212002	PR-TK02-HA01(0-6)	SW3535	33503	PFAS-36	B220802A_03
10616212003	PR-TK03-HA01(0-6)	SW3535	33503	PFAS-36	B220729B_04
10616212004	PR-TK04-HA01(0-6)	SW3535	33503	PFAS-36	B220729B_04
10616212005	PR-TK05-HA01(0-6)	SW3535	33503	PFAS-36	B220729B_04
10616212006	PR-TK06-HA01(0-6)	SW3535	33503	PFAS-36	B220729B_04
10616212007	PR-TK07-HA01(0-6)	SW3535	33503	PFAS-36	B220729B_04
10616212008	PR-TK08-HA01(0-6)	SW3535	33503	PFAS-36	B220729B_04
10616212009	PR-TK09-HA01(0-6)	SW3535	33503	PFAS-36	B220729B_04
10616212010	PR-TK10-HA01(0-6)	SW3535	33503	PFAS-36	B220729B_04
10616212011	PR-TK11-HA01(0-6)	SW3535	33503	PFAS-36	B220802A_03
10616212011	PR-TK11-HA01(0-6)	SW3535	33503	PFAS-36	B220802A_06
10616212012	PR-TK12-HA01(0-6)	SW3535	33504	PFAS-36	B220805B_00
10616212013	PR-TK13-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_00
10616212014	PR-TK14-HA01(0-6)	SW3535	33504	PFAS-36	B220805B_00
10616212015	PR-TK15-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_00
10616212015	PR-TK15-HA01(0-6)	SW3535	33504	PFAS-36	B220805B_00
10616212016	PR-TK16-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_00
10616212017	PR-TK17-HA01(0-6)	SW3535	33504	PFAS-36	B220805B_00
10616212018	PR-TK18-HA01(0-6)	SW3535	33504	PFAS-36	B220805B_00
10616212019	PR-TK19-HA01(0-6)	SW3535	33504	PFAS-36	B220805B_00
10616212020	PR-TK20-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_01
10616212021	PR-TK21-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_01
10616212022	PR-TK22-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_01
10616212023	PR-TK23-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_01
10616212024	PR-TK24-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_01
10616212024	PR-TK24-HA01(0-6)	SW3535	33504	PFAS-36	B220805B_00
10616212025	PR-TK25-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_01
10616212025	PR-TK25-HA01(0-6)	SW3535	33504	PFAS-36	B220805B_00
10616212026	PR-TK26-HA01(0-6)	SW3535	33504	PFAS-36	B220805B_00
10616212027	PR-TK27-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_01
10616212028	PR-TK28-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_01
10616212029	PR-TK29-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_02
10616212030	PR-Building A-HA01(0-6)	SW3535	33504	PFAS-36	B220804B_02
10616212031	PR-Building B-HA01(0-6)	SW3535	33575	PFAS-36	B220811A_00
10616212032	PR-ERB-01	SW3535	33593	PFAS-36	B220806A_00
10616212033	PR-Decon-01	SW3535	33593	PFAS-36	B220806A_00
10616212034	PR-FB-01	SW3535	33593	PFAS-36	B220806A_00
10616212035	PR-ERB-02	SW3535	33593	PFAS-36	B220806A_00



Reporting Flags

- A = Reporting Limit based on signal to noise (EDL)
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Isotope ratio out of specification
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444
www.pacelabs.com

Appendix B

Sample Analysis Summary

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK01-HA01(0-6)
 Lab Sample ID 10616212001
 Lab File ID B220729B_041
 Matrix Soil
 Collected 07/06/2022 07:35
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.26g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.082 J	0.095	0.027	0.027	1	375-22-4		07/29/2022 22:51
PFPeA	0.26	0.095	0.027	0.027	1	2706-90-3		07/29/2022 22:51
HFPO-DA	ND	0.095	0.026	0.026	1	13252-13-6		07/29/2022 22:51
PFBS	ND	0.084	0.025	0.025	1	375-73-5		07/29/2022 22:51
PFHxA	0.14	0.095	0.026	0.026	1	307-24-4		07/29/2022 22:51
4:2 FTS	ND	0.089	0.022	0.022	1	757124-72-4		07/29/2022 22:51
PFPeS	ND	0.089	0.023	0.023	1	2706-91-4		07/29/2022 22:51
PFHpA	0.15	0.095	0.033	0.033	1	375-85-9		07/29/2022 22:51
DONA	ND	0.090	0.035	0.035	1	919005-14-4		07/29/2022 22:51
PFHxS	ND	0.087	0.021	0.021	1	355-46-4		07/29/2022 22:51
PFOA	0.15	0.095	0.030	0.030	1	335-67-1		07/29/2022 22:51
6:2 FTS	0.064 J	0.090	0.039	0.039	1	27619-97-2		07/29/2022 22:51
PFHpS	ND	0.090	0.026	0.026	1	375-92-8		07/29/2022 22:51
PFNA	0.18	0.095	0.030	0.030	1	375-95-1		07/29/2022 22:51
PFOSAm	ND	0.095	0.028	0.028	1	754-91-6		07/29/2022 22:51
PFOS	0.17	0.088	0.028	0.028	1	1763-23-1		07/29/2022 22:51
MeFOSA	ND	0.095	0.026	0.026	1	31506-32-8		07/29/2022 22:51
PFDA	0.38	0.095	0.022	0.022	1	335-76-2		07/29/2022 22:51
EtFOSAm	ND	0.095	0.024	0.024	1	4151-50-2		07/29/2022 22:51
8:2 FTS	ND	0.091	0.042	0.042	1	39108-34-4		07/29/2022 22:51
9-CI-PF3ON	ND	0.089	0.024	0.024	1	756426-58-1		07/29/2022 22:51
PFNS	ND	0.091	0.033	0.033	1	68259-12-1		07/29/2022 22:51
PFUnDA	0.060 J	0.095	0.029	0.029	1	2058-94-8		07/29/2022 22:51
NMeFOSAA	ND	0.095	0.027	0.027	1	2355-31-9		07/29/2022 22:51
NEtFOSAA	ND	0.095	0.038	0.038	1	2991-50-6		07/29/2022 22:51
PFDS	ND	0.092	0.027	0.027	1	335-77-3		07/29/2022 22:51
PFDOA	0.039 J	0.095	0.031	0.031	1	307-55-1		07/29/2022 22:51
MeFOSE	ND	0.095	0.029	0.029	1	24448-09-7		07/29/2022 22:51
EtFOSE	ND	0.095	0.031	0.031	1	1691-99-2		07/29/2022 22:51
11-CI-PF3OUdS	ND	0.090	0.024	0.024	1	763051-92-9		07/29/2022 22:51
PFTTrDA	ND	0.095	0.030	0.030	1	72629-94-8		07/29/2022 22:51
PFDoS	ND	0.092	0.025	0.025	1	79780-39-5		07/29/2022 22:51
PFTDA	ND	0.095	0.033	0.033	1	376-06-7		07/29/2022 22:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK01-HA01(0-6)
 Lab Sample ID 10616212001
 Lab File ID B220729B_041
 Matrix Soil
 Collected 07/06/2022 07:35
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.26g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.95	1.0	107	50-150		07/29/2022 22:51
13C4 PFOA	0.95	1.1	111	50-150		07/29/2022 22:51
13C2 PFDA	0.95	1.1	120	50-150		07/29/2022 22:51
13C4 PFOS	0.91	1.00	109	50-150		07/29/2022 22:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.95	0.82	86	25-150		07/29/2022 22:51
13C5 PFPeA	0.95	0.76	80	25-150		07/29/2022 22:51
13C3 PFBS	0.88	0.80	90	25-150		07/29/2022 22:51
13C2 4:2FTS	0.89	0.74	83	25-150		07/29/2022 22:51
13C5 PFHxA	0.95	0.90	95	25-150		07/29/2022 22:51
13C4 PFHpA	0.95	0.77	81	25-150		07/29/2022 22:51
13C3 PFHxS	0.90	0.82	91	25-150		07/29/2022 22:51
13C2 6:2FTS	0.90	0.73	81	25-150		07/29/2022 22:51
13C8 PFOA	0.95	0.88	93	25-150		07/29/2022 22:51
13C9 PFNA	0.95	0.87	91	25-150		07/29/2022 22:51
13C8 PFOS	0.91	0.89	98	25-150		07/29/2022 22:51
13C2 8:2FTS	0.91	0.94	103	25-150		07/29/2022 22:51
13C6 PFDA	0.95	0.82	86	25-150		07/29/2022 22:51
d3-MeFOSAA	0.95	0.86	90	25-150		07/29/2022 22:51
13C8 PFOSA	0.95	0.36	38	25-150		07/29/2022 22:51
d5-EtFOSAA	0.95	0.90	94	25-150		07/29/2022 22:51
13C7 PFUdA	0.95	0.88	93	25-150		07/29/2022 22:51
13C2 PFDoA	0.95	0.93	98	25-150		07/29/2022 22:51
13C2 PFTeDA	0.95	0.85	90	25-150		07/29/2022 22:51
13C3 HFPO-DA	0.95	0.77	81	25-150		07/29/2022 22:51
d7-N-MeFOSE	0.95	0.012	1	10-150	R	07/29/2022 22:51
d9-N-EtFOSE	0.95	0.015	2	10-150	R	07/29/2022 22:51
d3-N-MeFOSA	0.95	0.0029	0	10-150	R	07/29/2022 22:51
d5-N-EtFOSA	0.95	0.0031	0	10-150	R	07/29/2022 22:51

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Total Amount Extracted 5.26g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.85	5.71	21		07/29/2022 22:51
13C4 PFOA	N/A	N/A	7.13	6.96	23		07/29/2022 22:51
13C2 PFDA	N/A	N/A	8.44	8.27	19		07/29/2022 22:51
13C4 PFOS	N/A	N/A	8.90	8.75	14		07/29/2022 22:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.26	27		07/29/2022 22:51
13C5 PFPeA	N/A	N/A	5.18	5.13	24		07/29/2022 22:51
13C3 PFBS	N/A	N/A	6.08	5.96	22		07/29/2022 22:51
13C2 4:2FTS	N/A	N/A	5.58	5.48	56		07/29/2022 22:51
13C5 PFHxA	N/A	N/A	5.85	5.73	21		07/29/2022 22:51
13C4 PFHpA	N/A	N/A	6.50	6.32	17		07/29/2022 22:51
13C3 PFHxS	N/A	N/A	7.52	7.52	17		07/29/2022 22:51
13C2 6:2FTS	N/A	N/A	6.81	6.67	89		07/29/2022 22:51
13C8 PFOA	N/A	N/A	7.13	6.94	22		07/29/2022 22:51
13C9 PFNA	N/A	N/A	7.78	7.76	22		07/29/2022 22:51
13C8 PFOS	N/A	N/A	8.90	8.80	15		07/29/2022 22:51
13C2 8:2FTS	N/A	N/A	8.07	7.94	16		07/29/2022 22:51
13C6 PFDA	N/A	N/A	8.44	8.32	14		07/29/2022 22:51
d3-MeFOSAA	N/A	N/A	8.31	8.19	16		07/29/2022 22:51
13C8 PFOSA	N/A	N/A	10.63	10.61	13		07/29/2022 22:51
d5-EtFOSAA	N/A	N/A	8.60	8.49	13		07/29/2022 22:51
13C7 PFUdA	N/A	N/A	9.11	9.00	27		07/29/2022 22:51
13C2 PFDoA	N/A	N/A	9.79	9.67	12		07/29/2022 22:51
13C2 PFTeDA	N/A	N/A	11.11	11.00	91		07/29/2022 22:51
13C3 HFPO-DA	N/A	N/A	6.12	5.97	15		07/29/2022 22:51
d7-N-MeFOSE	N/A	N/A	12.48	12.38	42	R	07/29/2022 22:51
d9-N-EtFOSE	N/A	N/A	12.95	12.96	97	R	07/29/2022 22:51
d3-N-MeFOSA	N/A	N/A	12.69	12.64	75	R	07/29/2022 22:51
d5-N-EtFOSA	N/A	N/A	13.11	13.11	65	R	07/29/2022 22:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK01-HA01(0-6)
 Lab Sample ID 10616212001
 Lab File ID B220729B_041
 Matrix Soil
 Collected 07/06/2022 07:35
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.26g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.32	4.31	99	J	07/29/2022 22:51
PFPeA	N/A	N/A	5.18	5.12	23		07/29/2022 22:51
HFPO-DA	0.00	0.32	0.00	6.02	ND		07/29/2022 22:51
PFBS	0.35	0.41	6.08	6.05	ND		07/29/2022 22:51
PFHxA	0.09	0.08	5.86	5.88	14		07/29/2022 22:51
4:2 FTS	0.00	0.83	0.00	5.49	ND		07/29/2022 22:51
PFPeS	0.00	0.46	0.00	6.73	ND		07/29/2022 22:51
PFHpA	0.29	0.32	6.50	6.39	23		07/29/2022 22:51
DONA	0.00	0.56	0.00	6.62	ND		07/29/2022 22:51
PFHxS	0.36	0.41	7.54	7.43	ND		07/29/2022 22:51
PFOA	0.39	0.40	7.14	7.03	19		07/29/2022 22:51
6:2 FTS	0.82	0.81	6.81	6.72	21	J	07/29/2022 22:51
PFHpS	0.00	0.38	0.00	8.13	ND		07/29/2022 22:51
PFNA	0.13	0.13	7.79	7.80	46		07/29/2022 22:51
PFOSAm	N/A	N/A	10.65	10.55	ND		07/29/2022 22:51
PFOS	0.42	0.41	8.91	8.81	66		07/29/2022 22:51
MeFOSA	0.00	0.59	0.00	12.73	ND		07/29/2022 22:51
PFDA	0.18	0.14	8.45	8.45	48		07/29/2022 22:51
EtFOSAm	0.00	0.60	0.00	13.03	ND		07/29/2022 22:51
8:2 FTS	0.92	1.00	8.08	7.95	ND		07/29/2022 22:51
9-Cl-PF3ON	0.00	0.06	0.00	9.31	ND		07/29/2022 22:51
PFNS	0.00	0.54	0.00	9.52	ND		07/29/2022 22:51
PFUnDA	0.14	0.14	9.12	9.12	92	J	07/29/2022 22:51
NMeFOSAA	0.00	0.87	0.00	8.31	ND		07/29/2022 22:51
NEtFOSAA	0.00	0.61	0.00	8.51	ND		07/29/2022 22:51
PFDS	0.00	0.37	0.00	10.16	ND		07/29/2022 22:51
PFDOA	0.21	0.17	9.79	9.79	13	J	07/29/2022 22:51
MeFOSE	N/A	N/A	0.00	12.41	ND		07/29/2022 22:51
EtFOSE	0.00	0.00	0.00	12.89	ND		07/29/2022 22:51
11-Cl-PF3OUdS	0.00	0.02	0.00	10.64	ND		07/29/2022 22:51
PFTTrDA	0.17	0.17	10.46	10.46	ND		07/29/2022 22:51
PFDoS	0.00	0.53	0.00	11.39	ND		07/29/2022 22:51
PFTDA	0.23	0.29	11.12	11.00	ND		07/29/2022 22:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK02-HA01(0-6)
 Lab Sample ID 10616212002
 Lab File ID B220802A_036
 Matrix Soil
 Collected 07/06/2022 08:05
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.27g
 Ical ID 220728A02
 CCal File B220802A_032
 Ending CCal File B220802A_044
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.15	0.095	0.027	0.027	1	375-22-4		08/02/2022 20:10
PFPeA	0.62	0.095	0.027	0.027	1	2706-90-3		08/02/2022 20:10
HFPO-DA	ND	0.095	0.026	0.026	1	13252-13-6		08/02/2022 20:10
PFBS	ND	0.084	0.025	0.025	1	375-73-5		08/02/2022 20:10
PFHxA	0.25	0.095	0.026	0.026	1	307-24-4		08/02/2022 20:10
4:2 FTS	ND	0.089	0.022	0.022	1	757124-72-4		08/02/2022 20:10
PFPeS	ND	0.089	0.023	0.023	1	2706-91-4		08/02/2022 20:10
PFHpA	0.19	0.095	0.033	0.033	1	375-85-9		08/02/2022 20:10
DONA	ND	0.090	0.034	0.034	1	919005-14-4		08/02/2022 20:10
PFHxS	0.068 J	0.086	0.021	0.021	1	355-46-4		08/02/2022 20:10
PFOA	0.19	0.095	0.030	0.030	1	335-67-1		08/02/2022 20:10
6:2 FTS	0.30	0.090	0.039	0.039	1	27619-97-2		08/02/2022 20:10
PFHpS	ND	0.090	0.026	0.026	1	375-92-8		08/02/2022 20:10
PFNA	0.28	0.095	0.030	0.030	1	375-95-1		08/02/2022 20:10
PFOSAm	0.032 J	0.095	0.028	0.028	1	754-91-6		08/02/2022 20:10
PFOS	2.7	0.088	0.028	0.028	1	1763-23-1		08/02/2022 20:10
MeFOSA	ND	0.095	0.026	0.026	1	31506-32-8		08/02/2022 20:10
PFDA	0.51	0.095	0.022	0.022	1	335-76-2		08/02/2022 20:10
EtFOSAm	ND	0.095	0.024	0.024	1	4151-50-2		08/02/2022 20:10
8:2 FTS	0.89	0.091	0.042	0.042	1	39108-34-4		08/02/2022 20:10
9-CI-PF3ON	ND	0.088	0.024	0.024	1	756426-58-1		08/02/2022 20:10
PFNS	ND	0.091	0.033	0.033	1	68259-12-1		08/02/2022 20:10
PFUnDA	0.41	0.095	0.029	0.029	1	2058-94-8		08/02/2022 20:10
NMeFOSAA	ND	0.095	0.027	0.027	1	2355-31-9		08/02/2022 20:10
NEtFOSAA	ND	0.095	0.038	0.038	1	2991-50-6		08/02/2022 20:10
PFDS	ND	0.092	0.027	0.027	1	335-77-3		08/02/2022 20:10
PFDOA	0.37	0.095	0.031	0.031	1	307-55-1		08/02/2022 20:10
MeFOSE	ND	0.095	0.029	0.029	1	24448-09-7		08/02/2022 20:10
EtFOSE	ND	0.095	0.031	0.031	1	1691-99-2		08/02/2022 20:10
11-CI-PF3OUdS	ND	0.089	0.024	0.024	1	763051-92-9		08/02/2022 20:10
PFTTrDA	0.093 J	0.095	0.030	0.030	1	72629-94-8		08/02/2022 20:10
PFDoS	ND	0.092	0.025	0.025	1	79780-39-5		08/02/2022 20:10
PFTDA	0.099	0.095	0.033	0.033	1	376-06-7		08/02/2022 20:10

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK02-HA01(0-6)
 Lab Sample ID 10616212002
 Lab File ID B220802A_036
 Matrix Soil
 Collected 07/06/2022 08:05
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.27g
 Ical ID 220728A02
 CCal File B220802A_032
 Ending CCal File B220802A_044
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.95	0.92	97	50-150		08/02/2022 20:10
13C4 PFOA	0.95	1.2	126	50-150		08/02/2022 20:10
13C2 PFDA	0.95	1.0	108	50-150		08/02/2022 20:10
13C4 PFOS	0.91	1.1	116	50-150		08/02/2022 20:10

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.95	0.85	89	50-150		08/02/2022 20:10
13C5 PFPeA	0.95	0.87	92	50-150		08/02/2022 20:10
13C3 PFBS	0.88	0.81	92	50-150		08/02/2022 20:10
13C2 4:2FTS	0.89	0.81	92	50-150		08/02/2022 20:10
13C5 PFHxA	0.95	0.91	96	50-150		08/02/2022 20:10
13C4 PFHpA	0.95	0.97	102	50-150		08/02/2022 20:10
13C3 PFHxS	0.90	0.84	93	50-150		08/02/2022 20:10
13C2 6:2FTS	0.90	0.75	83	50-150		08/02/2022 20:10
13C8 PFOA	0.95	1.1	114	50-150		08/02/2022 20:10
13C9 PFNA	0.95	0.82	86	50-150		08/02/2022 20:10
13C8 PFOS	0.91	0.84	92	50-150		08/02/2022 20:10
13C2 8:2FTS	0.91	0.91	100	50-150		08/02/2022 20:10
13C6 PFDA	0.95	0.87	92	50-150		08/02/2022 20:10
d3-MeFOSAA	0.95	0.90	95	50-150		08/02/2022 20:10
13C8 PFOSA	0.95	0.57	60	50-150		08/02/2022 20:10
d5-EtFOSAA	0.95	0.87	91	50-150		08/02/2022 20:10
13C7 PFUdA	0.95	0.94	99	50-150		08/02/2022 20:10
13C2 PFDoA	0.95	1.0	108	50-150		08/02/2022 20:10
13C2 PFTeDA	0.95	0.83	88	50-150		08/02/2022 20:10
13C3 HFPO-DA	0.95	0.86	91	50-150		08/02/2022 20:10
d7-N-MeFOSE	0.95	0.087	9	10-150	R	08/02/2022 20:10
d9-N-EtFOSE	0.95	0.042	4	10-150	R	08/02/2022 20:10
d3-N-MeFOSA	0.95	0.0034	0	10-150	R	08/02/2022 20:10
d5-N-EtFOSA	0.95	0.0053	1	10-150	R	08/02/2022 20:10

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK02-HA01(0-6)
 Lab Sample ID 10616212002
 Lab File ID B220802A_036
 Matrix Soil
 Collected 07/06/2022 08:05
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.27g
 Ical ID 220728A02
 CCal File B220802A_032
 Ending CCal File B220802A_044
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.71	18		08/02/2022 20:10
13C4 PFOA	N/A	N/A	7.07	6.96	22		08/02/2022 20:10
13C2 PFDA	N/A	N/A	8.38	8.27	14		08/02/2022 20:10
13C4 PFOS	N/A	N/A	8.85	8.75	12		08/02/2022 20:10

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.38	23		08/02/2022 20:10
13C5 PFPeA	N/A	N/A	5.14	5.13	20		08/02/2022 20:10
13C3 PFBS	N/A	N/A	6.03	5.96	15		08/02/2022 20:10
13C2 4:2FTS	N/A	N/A	5.53	5.48	67		08/02/2022 20:10
13C5 PFHxA	N/A	N/A	5.79	5.73	17		08/02/2022 20:10
13C4 PFHpA	N/A	N/A	6.43	6.32	21		08/02/2022 20:10
13C3 PFHxS	N/A	N/A	7.47	7.47	19		08/02/2022 20:10
13C2 6:2FTS	N/A	N/A	6.73	6.73	84		08/02/2022 20:10
13C8 PFOA	N/A	N/A	7.07	6.94	20		08/02/2022 20:10
13C9 PFNA	N/A	N/A	7.72	7.61	18		08/02/2022 20:10
13C8 PFOS	N/A	N/A	8.85	8.80	14		08/02/2022 20:10
13C2 8:2FTS	N/A	N/A	8.00	7.94	14		08/02/2022 20:10
13C6 PFDA	N/A	N/A	8.38	8.32	18		08/02/2022 20:10
d3-MeFOSAA	N/A	N/A	8.25	8.19	10		08/02/2022 20:10
13C8 PFOSA	N/A	N/A	10.56	10.61	13		08/02/2022 20:10
d5-EtFOSAA	N/A	N/A	8.54	8.49	16		08/02/2022 20:10
13C7 PFUdA	N/A	N/A	9.05	9.00	18		08/02/2022 20:10
13C2 PFDoA	N/A	N/A	9.72	9.67	12		08/02/2022 20:10
13C2 PFTeDA	N/A	N/A	11.02	11.00	15		08/02/2022 20:10
13C3 HFPO-DA	N/A	N/A	6.05	5.97	14		08/02/2022 20:10
d7-N-MeFOSE	N/A	N/A	12.40	12.38	49	R	08/02/2022 20:10
d9-N-EtFOSE	N/A	N/A	12.87	12.85	12	R	08/02/2022 20:10
d3-N-MeFOSA	N/A	N/A	12.62	12.64	46	R	08/02/2022 20:10
d5-N-EtFOSA	N/A	N/A	13.02	13.01	88	R	08/02/2022 20:10

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK02-HA01(0-6)
 Lab Sample ID 10616212002
 Lab File ID B220802A_036
 Matrix Soil
 Collected 07/06/2022 08:05
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.27g
 Ical ID 220728A02
 CCal File B220802A_032
 Ending CCal File B220802A_044
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	13		08/02/2022 20:10
PFPeA	N/A	N/A	5.14	5.12	47		08/02/2022 20:10
HFPO-DA	0.00	0.25	0.00	6.02	ND		08/02/2022 20:10
PFBS	0.47	0.43	6.03	5.99	ND		08/02/2022 20:10
PFHxA	0.08	0.08	5.80	5.75	18		08/02/2022 20:10
4:2 FTS	0.00	0.85	0.00	5.49	ND		08/02/2022 20:10
PFPeS	0.42	0.40	6.77	6.73	ND		08/02/2022 20:10
PFHpA	0.30	0.28	6.43	6.39	21		08/02/2022 20:10
DONA	0.00	0.60	0.00	6.62	ND		08/02/2022 20:10
PFHxS	0.36	0.38	7.48	7.43	38	J	08/02/2022 20:10
PFOA	0.39	0.42	7.07	7.03	19		08/02/2022 20:10
6:2 FTS	0.92	0.89	6.74	6.72	56		08/02/2022 20:10
PFHpS	0.42	0.33	8.18	8.13	ND		08/02/2022 20:10
PFNA	0.14	0.13	7.72	7.67	52		08/02/2022 20:10
PFOSAm	N/A	N/A	10.56	10.55	19	J	08/02/2022 20:10
PFOS	0.41	0.34	8.87	8.81	73		08/02/2022 20:10
MeFOSA	0.00	0.57	0.00	12.61	ND		08/02/2022 20:10
PFDA	0.18	0.18	8.39	8.34	50		08/02/2022 20:10
EtFOSAm	0.00	0.54	0.00	13.03	ND		08/02/2022 20:10
8:2 FTS	0.91	0.85	8.01	7.95	14		08/02/2022 20:10
9-CI-PF3ON	0.00	0.06	0.00	9.31	ND		08/02/2022 20:10
PFNS	0.47	0.54	9.54	9.52	ND		08/02/2022 20:10
PFUnDA	0.12	0.11	9.06	9.01	54		08/02/2022 20:10
NMeFOSAA	1.00	0.86	8.26	8.19	ND		08/02/2022 20:10
NEtFOSAA	0.00	0.60	0.00	8.51	ND		08/02/2022 20:10
PFDS	0.33	0.34	10.20	10.16	ND		08/02/2022 20:10
PFDOA	0.19	0.19	9.73	9.69	43		08/02/2022 20:10
MeFOSE	N/A	N/A	0.00	12.41	ND		08/02/2022 20:10
EtFOSE	0.00	0.00	0.00	12.89	ND		08/02/2022 20:10
11-CI-PF3OUdS	0.00	0.02	0.00	10.64	ND		08/02/2022 20:10
PFTTrDA	0.16	0.17	10.39	10.36	10	J	08/02/2022 20:10
PFDoS	0.34	0.54	11.43	11.39	ND		08/02/2022 20:10
PFTDA	0.27	0.28	11.03	11.00	18		08/02/2022 20:10

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK03-HA01(0-6)
 Lab Sample ID 10616212003
 Lab File ID B220729B_043
 Matrix Soil
 Collected 07/06/2022 14:05
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.13g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.098	0.028	0.028	1	375-22-4		07/29/2022 23:31
PFPeA	ND	0.098	0.028	0.028	1	2706-90-3		07/29/2022 23:31
HFPO-DA	ND	0.098	0.027	0.027	1	13252-13-6		07/29/2022 23:31
PFBS	ND	0.086	0.026	0.026	1	375-73-5		07/29/2022 23:31
PFHxA	ND	0.098	0.027	0.027	1	307-24-4		07/29/2022 23:31
4:2 FTS	ND	0.091	0.023	0.023	1	757124-72-4		07/29/2022 23:31
PFPeS	ND	0.092	0.023	0.023	1	2706-91-4		07/29/2022 23:31
PFHpA	ND	0.098	0.034	0.034	1	375-85-9		07/29/2022 23:31
DONA	ND	0.092	0.035	0.035	1	919005-14-4		07/29/2022 23:31
PFHxS	ND	0.089	0.021	0.021	1	355-46-4		07/29/2022 23:31
PFOA	0.037 J	0.098	0.030	0.030	1	335-67-1		07/29/2022 23:31
6:2 FTS	ND	0.093	0.040	0.040	1	27619-97-2		07/29/2022 23:31
PFHpS	ND	0.093	0.027	0.027	1	375-92-8		07/29/2022 23:31
PFNA	0.043 J	0.098	0.030	0.030	1	375-95-1		07/29/2022 23:31
PFOSAm	ND	0.098	0.029	0.029	1	754-91-6		07/29/2022 23:31
PFOS	0.10	0.090	0.029	0.029	1	1763-23-1		07/29/2022 23:31
MeFOSA	ND	0.098	0.027	0.027	1	31506-32-8		07/29/2022 23:31
PFDA	0.052 J	0.098	0.022	0.022	1	335-76-2		07/29/2022 23:31
EtFOSAm	ND	0.098	0.025	0.025	1	4151-50-2		07/29/2022 23:31
8:2 FTS	ND	0.094	0.043	0.043	1	39108-34-4		07/29/2022 23:31
9-CI-PF3ON	ND	0.091	0.024	0.024	1	756426-58-1		07/29/2022 23:31
PFNS	ND	0.094	0.034	0.034	1	68259-12-1		07/29/2022 23:31
PFUnDA	0.057 J	0.098	0.029	0.029	1	2058-94-8		07/29/2022 23:31
NMeFOSAA	ND	0.098	0.027	0.027	1	2355-31-9		07/29/2022 23:31
NEtFOSAA	ND	0.098	0.039	0.039	1	2991-50-6		07/29/2022 23:31
PFDS	ND	0.094	0.028	0.028	1	335-77-3		07/29/2022 23:31
PFDOA	ND	0.098	0.032	0.032	1	307-55-1		07/29/2022 23:31
MeFOSE	ND	0.098	0.030	0.030	1	24448-09-7		07/29/2022 23:31
EtFOSE	ND	0.098	0.031	0.031	1	1691-99-2		07/29/2022 23:31
11-CI-PF3OUdS	ND	0.092	0.025	0.025	1	763051-92-9		07/29/2022 23:31
PFTTrDA	ND	0.098	0.031	0.031	1	72629-94-8		07/29/2022 23:31
PFDoS	ND	0.094	0.025	0.025	1	79780-39-5		07/29/2022 23:31
PFTDA	ND	0.098	0.033	0.033	1	376-06-7		07/29/2022 23:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK03-HA01(0-6)
 Lab Sample ID 10616212003
 Lab File ID B220729B_043
 Matrix Soil
 Collected 07/06/2022 14:05
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.13g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.98	1.0	106	50-150		07/29/2022 23:31
13C4 PFOA	0.98	1.1	108	50-150		07/29/2022 23:31
13C2 PFDA	0.98	1.1	114	50-150		07/29/2022 23:31
13C4 PFOS	0.93	1.1	115	50-150		07/29/2022 23:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.98	0.81	83	25-150		07/29/2022 23:31
13C5 PFPeA	0.98	0.78	80	25-150		07/29/2022 23:31
13C3 PFBS	0.91	0.79	87	25-150		07/29/2022 23:31
13C2 4:2FTS	0.91	0.75	82	25-150		07/29/2022 23:31
13C5 PFHxA	0.98	0.90	93	25-150		07/29/2022 23:31
13C4 PFHpA	0.98	0.78	80	25-150		07/29/2022 23:31
13C3 PFHxS	0.92	0.80	86	25-150		07/29/2022 23:31
13C2 6:2FTS	0.93	0.72	78	25-150		07/29/2022 23:31
13C8 PFOA	0.98	0.89	91	25-150		07/29/2022 23:31
13C9 PFNA	0.98	0.84	86	25-150		07/29/2022 23:31
13C8 PFOS	0.93	0.88	94	25-150		07/29/2022 23:31
13C2 8:2FTS	0.93	0.90	97	25-150		07/29/2022 23:31
13C6 PFDA	0.98	0.89	91	25-150		07/29/2022 23:31
d3-MeFOSAA	0.98	0.87	89	25-150		07/29/2022 23:31
13C8 PFOSA	0.98	0.48	50	25-150		07/29/2022 23:31
d5-EtFOSAA	0.98	0.92	94	25-150		07/29/2022 23:31
13C7 PFUdA	0.98	0.89	91	25-150		07/29/2022 23:31
13C2 PFDaA	0.98	0.87	89	25-150		07/29/2022 23:31
13C2 PFTeDA	0.98	1.1	108	25-150		07/29/2022 23:31
13C3 HFPO-DA	0.98	0.74	76	25-150		07/29/2022 23:31
d7-N-MeFOSE	0.98	0.015	2	10-150	R	07/29/2022 23:31
d9-N-EtFOSE	0.98	0.021	2	10-150	R	07/29/2022 23:31
d3-N-MeFOSA	0.98	0.0017	0	10-150	R	07/29/2022 23:31
d5-N-EtFOSA	0.98	0.0024	0	10-150	R	07/29/2022 23:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK03-HA01(0-6)
 Lab Sample ID 10616212003
 Lab File ID B220729B_043
 Matrix Soil
 Collected 07/06/2022 14:05
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.13g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.86	5.71	21		07/29/2022 23:31
13C4 PFOA	N/A	N/A	7.14	6.96	17		07/29/2022 23:31
13C2 PFDA	N/A	N/A	8.47	8.27	26		07/29/2022 23:31
13C4 PFOS	N/A	N/A	8.94	8.75	15		07/29/2022 23:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.34	4.26	26		07/29/2022 23:31
13C5 PFPeA	N/A	N/A	5.20	5.13	25		07/29/2022 23:31
13C3 PFBS	N/A	N/A	6.09	5.96	18		07/29/2022 23:31
13C2 4:2FTS	N/A	N/A	5.60	5.48	57		07/29/2022 23:31
13C5 PFHxA	N/A	N/A	5.86	5.73	30		07/29/2022 23:31
13C4 PFHpA	N/A	N/A	6.50	6.32	22		07/29/2022 23:31
13C3 PFHxS	N/A	N/A	7.54	7.52	15		07/29/2022 23:31
13C2 6:2FTS	N/A	N/A	6.81	6.67	10		07/29/2022 23:31
13C8 PFOA	N/A	N/A	7.14	6.94	21		07/29/2022 23:31
13C9 PFNA	N/A	N/A	7.80	7.76	22		07/29/2022 23:31
13C8 PFOS	N/A	N/A	8.94	8.80	18		07/29/2022 23:31
13C2 8:2FTS	N/A	N/A	8.10	7.94	17		07/29/2022 23:31
13C6 PFDA	N/A	N/A	8.47	8.32	16		07/29/2022 23:31
d3-MeFOSAA	N/A	N/A	8.34	8.19	10		07/29/2022 23:31
13C8 PFOSA	N/A	N/A	10.67	10.61	16		07/29/2022 23:31
d5-EtFOSAA	N/A	N/A	8.64	8.49	83		07/29/2022 23:31
13C7 PFUdA	N/A	N/A	9.15	9.00	31		07/29/2022 23:31
13C2 PFDoA	N/A	N/A	9.83	9.67	11		07/29/2022 23:31
13C2 PFTeDA	N/A	N/A	11.15	11.00	14		07/29/2022 23:31
13C3 HFPO-DA	N/A	N/A	6.13	5.97	17		07/29/2022 23:31
d7-N-MeFOSE	N/A	N/A	12.52	12.38	37	R	07/29/2022 23:31
d9-N-EtFOSE	N/A	N/A	12.99	12.96	11	R	07/29/2022 23:31
d3-N-MeFOSA	N/A	N/A	12.73	12.64	37	R	07/29/2022 23:31
d5-N-EtFOSA	N/A	N/A	13.15	13.11	51	R	07/29/2022 23:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK03-HA01(0-6)
 Lab Sample ID 10616212003
 Lab File ID B220729B_043
 Matrix Soil
 Collected 07/06/2022 14:05
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.13g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.34	4.31	ND		07/29/2022 23:31
PFPeA	N/A	N/A	5.20	5.20	ND		07/29/2022 23:31
HFPO-DA	0.00	0.32	0.00	6.02	ND		07/29/2022 23:31
PFBS	0.35	0.41	6.08	6.05	ND		07/29/2022 23:31
PFHxA	0.08	0.08	5.87	5.88	ND		07/29/2022 23:31
4:2 FTS	0.00	0.83	0.00	5.49	ND		07/29/2022 23:31
PFPeS	0.00	0.46	0.00	6.73	ND		07/29/2022 23:31
PFHpA	0.32	0.32	6.51	6.39	ND		07/29/2022 23:31
DONA	0.00	0.56	0.00	6.62	ND		07/29/2022 23:31
PFHxS	0.54	0.41	7.55	7.43	ND		07/29/2022 23:31
PFOA	0.39	0.40	7.15	7.03	77	J	07/29/2022 23:31
6:2 FTS	0.95	0.81	6.81	6.72	ND		07/29/2022 23:31
PFHpS	0.00	0.38	0.00	8.13	ND		07/29/2022 23:31
PFNA	0.13	0.13	7.81	7.80	12	J	07/29/2022 23:31
PFOSAm	N/A	N/A	10.68	10.55	ND		07/29/2022 23:31
PFOS	0.43	0.41	8.95	8.81	38		07/29/2022 23:31
MeFOSA	0.00	0.59	0.00	12.73	ND		07/29/2022 23:31
PFDA	0.18	0.14	8.48	8.48	14	J	07/29/2022 23:31
EtFOSAm	0.00	0.60	0.00	13.03	ND		07/29/2022 23:31
8:2 FTS	1.40	1.00	8.10	8.10	ND		07/29/2022 23:31
9-Cl-PF3ON	0.00	0.06	0.00	9.31	ND		07/29/2022 23:31
PFNS	0.00	0.54	0.00	9.52	ND		07/29/2022 23:31
PFUnDA	0.15	0.14	9.16	9.16	72	J	07/29/2022 23:31
NMeFOSAA	0.00	0.87	0.00	8.31	ND		07/29/2022 23:31
NEtFOSAA	0.00	0.61	0.00	8.51	ND		07/29/2022 23:31
PFDS	0.41	0.37	10.31	10.31	ND		07/29/2022 23:31
PFDOA	0.21	0.17	9.84	9.84	ND		07/29/2022 23:31
MeFOSE	N/A	N/A	0.00	12.41	ND		07/29/2022 23:31
EtFOSE	0.00	0.00	0.00	12.89	ND		07/29/2022 23:31
11-Cl-PF3OUdS	0.00	0.02	0.00	10.64	ND		07/29/2022 23:31
PFTTrDA	0.23	0.17	10.51	10.51	ND		07/29/2022 23:31
PFDoS	0.00	0.53	0.00	11.39	ND		07/29/2022 23:31
PFTDA	0.29	0.29	11.16	11.16	ND		07/29/2022 23:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK04-HA01(0-6)
 Lab Sample ID 10616212004
 Lab File ID B220729B_044
 Matrix Soil
 Collected 07/06/2022 14:15
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.07g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.099	0.028	0.028	1	375-22-4		07/29/2022 23:51
PFPeA	0.038 J	0.099	0.028	0.028	1	2706-90-3		07/29/2022 23:51
HFPO-DA	ND	0.099	0.027	0.027	1	13252-13-6		07/29/2022 23:51
PFBS	ND	0.087	0.026	0.026	1	375-73-5		07/29/2022 23:51
PFHxA	0.030 J	0.099	0.027	0.027	1	307-24-4		07/29/2022 23:51
4:2 FTS	ND	0.092	0.023	0.023	1	757124-72-4		07/29/2022 23:51
PFPeS	ND	0.093	0.024	0.024	1	2706-91-4		07/29/2022 23:51
PFHpA	ND	0.099	0.034	0.034	1	375-85-9		07/29/2022 23:51
DONA	ND	0.093	0.036	0.036	1	919005-14-4		07/29/2022 23:51
PFHxS	ND	0.090	0.022	0.022	1	355-46-4		07/29/2022 23:51
PFOA	0.032 J	0.099	0.031	0.031	1	335-67-1		07/29/2022 23:51
6:2 FTS	0.043 J	0.094	0.041	0.041	1	27619-97-2		07/29/2022 23:51
PFHpS	ND	0.094	0.027	0.027	1	375-92-8		07/29/2022 23:51
PFNA	ND	0.099	0.031	0.031	1	375-95-1		07/29/2022 23:51
PFOSAm	ND	0.099	0.029	0.029	1	754-91-6		07/29/2022 23:51
PFOS	0.071 J	0.091	0.029	0.029	1	1763-23-1		07/29/2022 23:51
MeFOSA	ND	0.099	0.027	0.027	1	31506-32-8		07/29/2022 23:51
PFDA	ND	0.099	0.022	0.022	1	335-76-2		07/29/2022 23:51
EtFOSAm	ND	0.099	0.025	0.025	1	4151-50-2		07/29/2022 23:51
8:2 FTS	ND	0.095	0.043	0.043	1	39108-34-4		07/29/2022 23:51
9-CI-PF3ON	ND	0.092	0.025	0.025	1	756426-58-1		07/29/2022 23:51
PFNS	ND	0.095	0.034	0.034	1	68259-12-1		07/29/2022 23:51
PFUnDA	ND	0.099	0.030	0.030	1	2058-94-8		07/29/2022 23:51
NMeFOSAA	ND	0.099	0.028	0.028	1	2355-31-9		07/29/2022 23:51
NEtFOSAA	ND	0.099	0.040	0.040	1	2991-50-6		07/29/2022 23:51
PFDS	ND	0.095	0.028	0.028	1	335-77-3		07/29/2022 23:51
PFDOA	ND	0.099	0.032	0.032	1	307-55-1		07/29/2022 23:51
MeFOSE	ND	0.099	0.030	0.030	1	24448-09-7		07/29/2022 23:51
EtFOSE	ND	0.099	0.032	0.032	1	1691-99-2		07/29/2022 23:51
11-CI-PF3OUdS	ND	0.093	0.025	0.025	1	763051-92-9		07/29/2022 23:51
PFTTrDA	ND	0.099	0.031	0.031	1	72629-94-8		07/29/2022 23:51
PFDoS	ND	0.095	0.026	0.026	1	79780-39-5		07/29/2022 23:51
PFTDA	ND	0.099	0.034	0.034	1	376-06-7		07/29/2022 23:51

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Sample Analysis Summary
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Client Sample ID PR-TK04-HA01(0-6)
 Lab Sample ID 10616212004
 Lab File ID B220729B_044
 Matrix Soil
 Collected 07/06/2022 14:15
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.07g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.99	1.1	110	50-150		07/29/2022 23:51
13C4 PFOA	0.99	1.0	105	50-150		07/29/2022 23:51
13C2 PFDA	0.99	1.0	106	50-150		07/29/2022 23:51
13C4 PFOS	0.94	1.1	114	50-150		07/29/2022 23:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.99	0.83	84	25-150		07/29/2022 23:51
13C5 PFPeA	0.99	0.81	82	25-150		07/29/2022 23:51
13C3 PFBS	0.92	0.81	88	25-150		07/29/2022 23:51
13C2 4:2FTS	0.92	0.77	84	25-150		07/29/2022 23:51
13C5 PFHxA	0.99	0.83	84	25-150		07/29/2022 23:51
13C4 PFHpA	0.99	0.87	88	25-150		07/29/2022 23:51
13C3 PFHxS	0.93	0.83	89	25-150		07/29/2022 23:51
13C2 6:2FTS	0.94	0.72	76	25-150		07/29/2022 23:51
13C8 PFOA	0.99	0.89	90	25-150		07/29/2022 23:51
13C9 PFNA	0.99	0.87	88	25-150		07/29/2022 23:51
13C8 PFOS	0.94	0.87	92	25-150		07/29/2022 23:51
13C2 8:2FTS	0.94	1.0	109	25-150		07/29/2022 23:51
13C6 PFDA	0.99	0.85	86	25-150		07/29/2022 23:51
d3-MeFOSAA	0.99	0.83	85	25-150		07/29/2022 23:51
13C8 PFOSA	0.99	0.62	63	25-150		07/29/2022 23:51
d5-EtFOSAA	0.99	0.92	93	25-150		07/29/2022 23:51
13C7 PFUdA	0.99	0.89	90	25-150		07/29/2022 23:51
13C2 PFDoA	0.99	0.94	96	25-150		07/29/2022 23:51
13C2 PFTeDA	0.99	1.1	111	25-150		07/29/2022 23:51
13C3 HFPO-DA	0.99	0.78	79	25-150		07/29/2022 23:51
d7-N-MeFOSE	0.99	0.055	6	10-150	R	07/29/2022 23:51
d9-N-EtFOSE	0.99	0.076	8	10-150	R	07/29/2022 23:51
d3-N-MeFOSA	0.99	0.0078	1	10-150	R	07/29/2022 23:51
d5-N-EtFOSA	0.99	0.015	2	10-150	R	07/29/2022 23:51

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Client Sample ID PR-TK04-HA01(0-6)
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Total Amount Extracted 5.07g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.85	5.71	17		07/29/2022 23:51
13C4 PFOA	N/A	N/A	7.13	6.96	18		07/29/2022 23:51
13C2 PFDA	N/A	N/A	8.46	8.27	24		07/29/2022 23:51
13C4 PFOS	N/A	N/A	8.93	8.75	10		07/29/2022 23:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.26	24		07/29/2022 23:51
13C5 PFPeA	N/A	N/A	5.18	5.13	24		07/29/2022 23:51
13C3 PFBS	N/A	N/A	6.08	5.96	12		07/29/2022 23:51
13C2 4:2FTS	N/A	N/A	5.59	5.48	46		07/29/2022 23:51
13C5 PFHxA	N/A	N/A	5.86	5.73	13		07/29/2022 23:51
13C4 PFHpA	N/A	N/A	6.50	6.32	17		07/29/2022 23:51
13C3 PFHxS	N/A	N/A	7.53	7.52	11		07/29/2022 23:51
13C2 6:2FTS	N/A	N/A	6.81	6.67	71		07/29/2022 23:51
13C8 PFOA	N/A	N/A	7.13	6.94	23		07/29/2022 23:51
13C9 PFNA	N/A	N/A	7.79	7.76	26		07/29/2022 23:51
13C8 PFOS	N/A	N/A	8.93	8.80	10		07/29/2022 23:51
13C2 8:2FTS	N/A	N/A	8.08	7.94	95		07/29/2022 23:51
13C6 PFDA	N/A	N/A	8.47	8.32	13		07/29/2022 23:51
d3-MeFOSAA	N/A	N/A	8.33	8.19	16		07/29/2022 23:51
13C8 PFOSA	N/A	N/A	10.65	10.61	17		07/29/2022 23:51
d5-EtFOSAA	N/A	N/A	8.63	8.49	19		07/29/2022 23:51
13C7 PFUdA	N/A	N/A	9.14	9.00	23		07/29/2022 23:51
13C2 PFDoA	N/A	N/A	9.82	9.67	13		07/29/2022 23:51
13C2 PFTeDA	N/A	N/A	11.14	11.00	12		07/29/2022 23:51
13C3 HFPO-DA	N/A	N/A	6.12	5.97	17		07/29/2022 23:51
d7-N-MeFOSE	N/A	N/A	12.50	12.38	58	R	07/29/2022 23:51
d9-N-EtFOSE	N/A	N/A	12.97	12.96	21	R	07/29/2022 23:51
d3-N-MeFOSA	N/A	N/A	12.71	12.64	11	R	07/29/2022 23:51
d5-N-EtFOSA	N/A	N/A	13.13	13.11	19	R	07/29/2022 23:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK04-HA01(0-6)
 Lab Sample ID 10616212004
 Lab File ID B220729B_044
 Matrix Soil
 Collected 07/06/2022 14:15
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.07g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	ND		07/29/2022 23:51
PFPeA	N/A	N/A	5.19	5.19	12	J	07/29/2022 23:51
HFPO-DA	0.00	0.32	0.00	6.02	ND		07/29/2022 23:51
PFBS	0.25	0.41	6.08	6.05	ND		07/29/2022 23:51
PFHxA	0.07	0.08	5.86	5.88	51	J	07/29/2022 23:51
4:2 FTS	0.00	0.83	0.00	5.49	ND		07/29/2022 23:51
PFPeS	0.00	0.46	0.00	6.73	ND		07/29/2022 23:51
PFHpA	0.30	0.32	6.50	6.39	ND		07/29/2022 23:51
DONA	0.00	0.56	0.00	6.62	ND		07/29/2022 23:51
PFHxS	0.42	0.41	7.54	7.43	ND		07/29/2022 23:51
PFOA	0.43	0.40	7.14	7.03	94	J	07/29/2022 23:51
6:2 FTS	0.81	0.81	6.81	6.72	15	J	07/29/2022 23:51
PFHpS	0.00	0.38	0.00	8.13	ND		07/29/2022 23:51
PFNA	0.13	0.13	7.80	7.80	ND		07/29/2022 23:51
PFOSAm	N/A	N/A	10.65	10.55	ND		07/29/2022 23:51
PFOS	0.45	0.41	8.94	8.81	30	J	07/29/2022 23:51
MeFOSA	0.00	0.59	0.00	12.73	ND		07/29/2022 23:51
PFDA	0.18	0.14	8.47	8.47	ND		07/29/2022 23:51
EtFOSAm	0.00	0.60	0.00	13.03	ND		07/29/2022 23:51
8:2 FTS	0.91	1.00	8.09	7.95	ND		07/29/2022 23:51
9-Cl-PF3ON	0.00	0.06	0.00	9.31	ND		07/29/2022 23:51
PFNS	0.00	0.54	0.00	9.52	ND		07/29/2022 23:51
PFUnDA	0.15	0.14	9.15	9.15	ND		07/29/2022 23:51
NMeFOSAA	1.60	0.87	8.34	8.31	ND		07/29/2022 23:51
NEtFOSAA	0.00	0.61	0.00	8.51	ND		07/29/2022 23:51
PFDS	0.53	0.37	10.29	10.16	ND		07/29/2022 23:51
PFDOA	0.17	0.17	9.83	9.83	ND		07/29/2022 23:51
MeFOSE	N/A	N/A	0.00	12.41	ND		07/29/2022 23:51
EtFOSE	0.00	0.00	0.00	12.89	ND		07/29/2022 23:51
11-Cl-PF3OUdS	0.00	0.02	0.00	10.64	ND		07/29/2022 23:51
PFTTrDA	0.16	0.17	10.49	10.49	ND		07/29/2022 23:51
PFDoS	0.00	0.53	0.00	11.39	ND		07/29/2022 23:51
PFTDA	0.21	0.29	11.15	11.15	ND		07/29/2022 23:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK05-HA01(0-6)
 Lab Sample ID 10616212005
 Lab File ID B220729B_045
 Matrix Soil
 Collected 07/06/2022 10:40
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.05g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.099	0.028	0.028	1	375-22-4		07/30/2022 00:11
PFPeA	0.056 J	0.099	0.028	0.028	1	2706-90-3		07/30/2022 00:11
HFPO-DA	ND	0.099	0.028	0.028	1	13252-13-6		07/30/2022 00:11
PFBS	ND	0.088	0.026	0.026	1	375-73-5		07/30/2022 00:11
PFHxA	ND	0.099	0.027	0.027	1	307-24-4		07/30/2022 00:11
4:2 FTS	ND	0.093	0.023	0.023	1	757124-72-4		07/30/2022 00:11
PFPeS	ND	0.093	0.024	0.024	1	2706-91-4		07/30/2022 00:11
PFHpA	ND	0.099	0.034	0.034	1	375-85-9		07/30/2022 00:11
DONA	ND	0.094	0.036	0.036	1	919005-14-4		07/30/2022 00:11
PFHxS	ND	0.090	0.022	0.022	1	355-46-4		07/30/2022 00:11
PFOA	0.033 J	0.099	0.031	0.031	1	335-67-1		07/30/2022 00:11
6:2 FTS	ND	0.094	0.041	0.041	1	27619-97-2		07/30/2022 00:11
PFHpS	ND	0.094	0.028	0.028	1	375-92-8		07/30/2022 00:11
PFNA	ND	0.099	0.031	0.031	1	375-95-1		07/30/2022 00:11
PFOSAm	ND	0.099	0.029	0.029	1	754-91-6		07/30/2022 00:11
PFOS	ND	0.092	0.029	0.029	1	1763-23-1		07/30/2022 00:11
MeFOSA	ND	0.099	0.027	0.027	1	31506-32-8		07/30/2022 00:11
PFDA	ND	0.099	0.023	0.023	1	335-76-2		07/30/2022 00:11
EtFOSAm	ND	0.099	0.025	0.025	1	4151-50-2		07/30/2022 00:11
8:2 FTS	ND	0.095	0.043	0.043	1	39108-34-4		07/30/2022 00:11
9-CI-PF3ON	ND	0.092	0.025	0.025	1	756426-58-1		07/30/2022 00:11
PFNS	ND	0.095	0.034	0.034	1	68259-12-1		07/30/2022 00:11
PFUnDA	ND	0.099	0.030	0.030	1	2058-94-8		07/30/2022 00:11
NMeFOSAA	ND	0.099	0.028	0.028	1	2355-31-9		07/30/2022 00:11
NEtFOSAA	ND	0.099	0.040	0.040	1	2991-50-6		07/30/2022 00:11
PFDS	ND	0.096	0.028	0.028	1	335-77-3		07/30/2022 00:11
PFDOA	ND	0.099	0.033	0.033	1	307-55-1		07/30/2022 00:11
MeFOSE	ND	0.099	0.030	0.030	1	24448-09-7		07/30/2022 00:11
EtFOSE	ND	0.099	0.032	0.032	1	1691-99-2		07/30/2022 00:11
11-CI-PF3OUdS	ND	0.093	0.025	0.025	1	763051-92-9		07/30/2022 00:11
PFTTrDA	ND	0.099	0.032	0.032	1	72629-94-8		07/30/2022 00:11
PFDoS	ND	0.096	0.026	0.026	1	79780-39-5		07/30/2022 00:11
PFTDA	ND	0.099	0.034	0.034	1	376-06-7		07/30/2022 00:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK05-HA01(0-6)
 Lab Sample ID 10616212005
 Lab File ID B220729B_045
 Matrix Soil
 Collected 07/06/2022 10:40
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.05g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.99	0.99	100	50-150		07/30/2022 00:11
13C4 PFOA	0.99	1.0	103	50-150		07/30/2022 00:11
13C2 PFDA	0.99	1.1	110	50-150		07/30/2022 00:11
13C4 PFOS	0.95	1.0	110	50-150		07/30/2022 00:11

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.99	0.81	82	25-150		07/30/2022 00:11
13C5 PFPeA	0.99	0.82	83	25-150		07/30/2022 00:11
13C3 PFBS	0.92	0.78	85	25-150		07/30/2022 00:11
13C2 4:2FTS	0.93	0.79	86	25-150		07/30/2022 00:11
13C5 PFHxA	0.99	0.88	89	25-150		07/30/2022 00:11
13C4 PFHpA	0.99	0.85	86	25-150		07/30/2022 00:11
13C3 PFHxS	0.94	0.88	94	25-150		07/30/2022 00:11
13C2 6:2FTS	0.94	0.81	86	25-150		07/30/2022 00:11
13C8 PFOA	0.99	0.88	89	25-150		07/30/2022 00:11
13C9 PFNA	0.99	0.95	96	25-150		07/30/2022 00:11
13C8 PFOS	0.95	0.89	94	25-150		07/30/2022 00:11
13C2 8:2FTS	0.95	1.00	105	25-150		07/30/2022 00:11
13C6 PFDA	0.99	0.84	85	25-150		07/30/2022 00:11
d3-MeFOSAA	0.99	0.84	85	25-150		07/30/2022 00:11
13C8 PFOSA	0.99	0.41	42	25-150		07/30/2022 00:11
d5-EtFOSAA	0.99	0.86	87	25-150		07/30/2022 00:11
13C7 PFUdA	0.99	0.85	86	25-150		07/30/2022 00:11
13C2 PFDaA	0.99	0.92	93	25-150		07/30/2022 00:11
13C2 PFTeDA	0.99	0.91	92	25-150		07/30/2022 00:11
13C3 HFPO-DA	0.99	0.81	82	25-150		07/30/2022 00:11
d7-N-MeFOSE	0.99	0.013	1	10-150	R	07/30/2022 00:11
d9-N-EtFOSE	0.99	0.013	1	10-150	R	07/30/2022 00:11
d3-N-MeFOSA	0.99	0.0017	0	10-150	R	07/30/2022 00:11
d5-N-EtFOSA	0.99	0.0019	0	10-150	R	07/30/2022 00:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK05-HA01(0-6)
 Lab Sample ID 10616212005
 Lab File ID B220729B_045
 Matrix Soil
 Collected 07/06/2022 10:40
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.05g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.85	5.71	21		07/30/2022 00:11
13C4 PFOA	N/A	N/A	7.13	6.96	18		07/30/2022 00:11
13C2 PFDA	N/A	N/A	8.45	8.27	14		07/30/2022 00:11
13C4 PFOS	N/A	N/A	8.91	8.75	16		07/30/2022 00:11

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.26	22		07/30/2022 00:11
13C5 PFPeA	N/A	N/A	5.18	5.13	25		07/30/2022 00:11
13C3 PFBS	N/A	N/A	6.08	5.96	20		07/30/2022 00:11
13C2 4:2FTS	N/A	N/A	5.59	5.48	70		07/30/2022 00:11
13C5 PFHxA	N/A	N/A	5.85	5.73	18		07/30/2022 00:11
13C4 PFHpA	N/A	N/A	6.49	6.32	14		07/30/2022 00:11
13C3 PFHxS	N/A	N/A	7.52	7.52	21		07/30/2022 00:11
13C2 6:2FTS	N/A	N/A	6.80	6.67	14		07/30/2022 00:11
13C8 PFOA	N/A	N/A	7.13	6.94	21		07/30/2022 00:11
13C9 PFNA	N/A	N/A	7.78	7.76	20		07/30/2022 00:11
13C8 PFOS	N/A	N/A	8.91	8.80	24		07/30/2022 00:11
13C2 8:2FTS	N/A	N/A	8.07	7.94	14		07/30/2022 00:11
13C6 PFDA	N/A	N/A	8.45	8.32	12		07/30/2022 00:11
d3-MeFOSAA	N/A	N/A	8.32	8.19	14		07/30/2022 00:11
13C8 PFOSA	N/A	N/A	10.64	10.61	20		07/30/2022 00:11
d5-EtFOSAA	N/A	N/A	8.61	8.49	12		07/30/2022 00:11
13C7 PFUdA	N/A	N/A	9.12	9.00	22		07/30/2022 00:11
13C2 PFDoA	N/A	N/A	9.80	9.67	13		07/30/2022 00:11
13C2 PFTeDA	N/A	N/A	11.13	11.00	11		07/30/2022 00:11
13C3 HFPO-DA	N/A	N/A	6.12	5.97	13		07/30/2022 00:11
d7-N-MeFOSE	N/A	N/A	12.50	12.38	41	R	07/30/2022 00:11
d9-N-EtFOSE	N/A	N/A	12.96	12.96	10	R	07/30/2022 00:11
d3-N-MeFOSA	N/A	N/A	12.70	12.70	15	R	07/30/2022 00:11
d5-N-EtFOSA	N/A	N/A	13.13	13.11	57	R	07/30/2022 00:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK05-HA01(0-6)
 Lab Sample ID 10616212005
 Lab File ID B220729B_045
 Matrix Soil
 Collected 07/06/2022 10:40
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.05g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.32	4.31	ND		07/30/2022 00:11
PFPeA	N/A	N/A	5.19	5.12	13	J	07/30/2022 00:11
HFPO-DA	0.00	0.32	0.00	6.02	ND		07/30/2022 00:11
PFBS	0.66	0.41	6.09	6.05	ND		07/30/2022 00:11
PFHxA	0.10	0.08	5.86	5.88	ND		07/30/2022 00:11
4:2 FTS	0.00	0.83	0.00	5.49	ND		07/30/2022 00:11
PFPeS	0.00	0.46	0.00	6.73	ND		07/30/2022 00:11
PFHpA	0.27	0.32	6.50	6.50	ND		07/30/2022 00:11
DONA	0.00	0.56	0.00	6.62	ND		07/30/2022 00:11
PFHxS	0.69	0.41	7.53	7.43	ND		07/30/2022 00:11
PFOA	0.51	0.40	7.13	7.03	36	J	07/30/2022 00:11
6:2 FTS	0.85	0.81	6.80	6.72	ND		07/30/2022 00:11
PFHpS	0.00	0.38	0.00	8.13	ND		07/30/2022 00:11
PFNA	0.09	0.13	7.79	7.80	ND		07/30/2022 00:11
PFOSAm	N/A	N/A	10.65	10.55	ND		07/30/2022 00:11
PFOS	0.50	0.41	8.92	8.81	ND		07/30/2022 00:11
MeFOSA	0.00	0.59	0.00	12.73	ND		07/30/2022 00:11
PFDA	0.24	0.14	8.46	8.46	ND		07/30/2022 00:11
EtFOSAm	0.00	0.60	0.00	13.03	ND		07/30/2022 00:11
8:2 FTS	0.00	1.00	0.00	7.95	ND		07/30/2022 00:11
9-Cl-PF3ON	0.00	0.06	0.00	9.31	ND		07/30/2022 00:11
PFNS	0.00	0.54	0.00	9.52	ND		07/30/2022 00:11
PFUnDA	0.00	0.14	0.00	9.01	ND		07/30/2022 00:11
NMeFOSAA	0.00	0.87	0.00	8.31	ND		07/30/2022 00:11
NEtFOSAA	0.00	0.61	0.00	8.51	ND		07/30/2022 00:11
PFDS	0.00	0.37	0.00	10.16	ND		07/30/2022 00:11
PFDOA	0.00	0.17	0.00	9.69	ND		07/30/2022 00:11
MeFOSE	N/A	N/A	0.00	12.41	ND		07/30/2022 00:11
EtFOSE	0.00	0.00	0.00	12.89	ND		07/30/2022 00:11
11-Cl-PF3OUdS	0.00	0.02	0.00	10.64	ND		07/30/2022 00:11
PFTTrDA	0.00	0.17	0.00	10.36	ND		07/30/2022 00:11
PFDoS	0.00	0.53	0.00	11.39	ND		07/30/2022 00:11
PFTDA	0.33	0.29	11.12	11.12	ND		07/30/2022 00:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK06-HA01(0-6)
 Lab Sample ID 10616212006
 Lab File ID B220729B_046
 Matrix Soil
 Collected 07/06/2022 11:10
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.29g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.11	0.094	0.027	0.027	1	375-22-4		07/30/2022 00:31
PFPeA	0.35	0.094	0.027	0.027	1	2706-90-3		07/30/2022 00:31
HFPO-DA	ND	0.094	0.026	0.026	1	13252-13-6		07/30/2022 00:31
PFBS	ND	0.084	0.025	0.025	1	375-73-5		07/30/2022 00:31
PFHxA	0.16	0.094	0.026	0.026	1	307-24-4		07/30/2022 00:31
4:2 FTS	ND	0.088	0.022	0.022	1	757124-72-4		07/30/2022 00:31
PFPeS	ND	0.089	0.023	0.023	1	2706-91-4		07/30/2022 00:31
PFHpA	0.25	0.094	0.033	0.033	1	375-85-9		07/30/2022 00:31
DONA	ND	0.089	0.034	0.034	1	919005-14-4		07/30/2022 00:31
PFHxS	ND	0.086	0.021	0.021	1	355-46-4		07/30/2022 00:31
PFOA	0.20	0.094	0.029	0.029	1	335-67-1		07/30/2022 00:31
6:2 FTS	ND	0.090	0.039	0.039	1	27619-97-2		07/30/2022 00:31
PFHpS	ND	0.090	0.026	0.026	1	375-92-8		07/30/2022 00:31
PFNA	0.072 J	0.094	0.029	0.029	1	375-95-1		07/30/2022 00:31
PFOSAm	ND	0.094	0.028	0.028	1	754-91-6		07/30/2022 00:31
PFOS	ND	0.087	0.028	0.028	1	1763-23-1		07/30/2022 00:31
MeFOSA	ND	0.094	0.026	0.026	1	31506-32-8		07/30/2022 00:31
PFDA	0.13	0.094	0.022	0.022	1	335-76-2		07/30/2022 00:31
EtFOSAm	ND	0.094	0.024	0.024	1	4151-50-2		07/30/2022 00:31
8:2 FTS	0.21	0.091	0.041	0.041	1	39108-34-4		07/30/2022 00:31
9-CI-PF3ON	ND	0.088	0.024	0.024	1	756426-58-1		07/30/2022 00:31
PFNS	ND	0.091	0.033	0.033	1	68259-12-1		07/30/2022 00:31
PFUnDA	0.038 J	0.094	0.029	0.029	1	2058-94-8		07/30/2022 00:31
NMeFOSAA	ND	0.094	0.027	0.027	1	2355-31-9		07/30/2022 00:31
NEtFOSAA	ND	0.094	0.038	0.038	1	2991-50-6		07/30/2022 00:31
PFDS	ND	0.091	0.027	0.027	1	335-77-3		07/30/2022 00:31
PFDOA	0.035 J	0.094	0.031	0.031	1	307-55-1		07/30/2022 00:31
MeFOSE	ND	0.094	0.029	0.029	1	24448-09-7		07/30/2022 00:31
EtFOSE	ND	0.094	0.030	0.030	1	1691-99-2		07/30/2022 00:31
11-CI-PF3OUdS	ND	0.089	0.024	0.024	1	763051-92-9		07/30/2022 00:31
PFTTrDA	ND	0.094	0.030	0.030	1	72629-94-8		07/30/2022 00:31
PFDoS	ND	0.091	0.025	0.025	1	79780-39-5		07/30/2022 00:31
PFTDA	ND	0.094	0.032	0.032	1	376-06-7		07/30/2022 00:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK06-HA01(0-6)
 Lab Sample ID 10616212006
 Lab File ID B220729B_046
 Matrix Soil
 Collected 07/06/2022 11:10
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.29g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.94	1.0	106	50-150		07/30/2022 00:31
13C4 PFOA	0.94	1.0	108	50-150		07/30/2022 00:31
13C2 PFDA	0.94	1.1	113	50-150		07/30/2022 00:31
13C4 PFOS	0.90	0.97	108	50-150		07/30/2022 00:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.94	0.84	89	25-150		07/30/2022 00:31
13C5 PFPeA	0.94	0.80	85	25-150		07/30/2022 00:31
13C3 PFBS	0.88	0.79	90	25-150		07/30/2022 00:31
13C2 4:2FTS	0.88	0.84	95	25-150		07/30/2022 00:31
13C5 PFHxA	0.94	0.91	96	25-150		07/30/2022 00:31
13C4 PFHpA	0.94	0.82	87	25-150		07/30/2022 00:31
13C3 PFHxS	0.89	0.82	91	25-150		07/30/2022 00:31
13C2 6:2FTS	0.90	0.81	90	25-150		07/30/2022 00:31
13C8 PFOA	0.94	0.87	93	25-150		07/30/2022 00:31
13C9 PFNA	0.94	0.88	93	25-150		07/30/2022 00:31
13C8 PFOS	0.90	0.84	93	25-150		07/30/2022 00:31
13C2 8:2FTS	0.90	1.0	114	25-150		07/30/2022 00:31
13C6 PFDA	0.94	0.85	90	25-150		07/30/2022 00:31
d3-MeFOSAA	0.94	0.88	93	25-150		07/30/2022 00:31
13C8 PFOSA	0.94	0.24	26	25-150		07/30/2022 00:31
d5-EtFOSAA	0.94	0.88	94	25-150		07/30/2022 00:31
13C7 PFUdA	0.94	0.84	89	25-150		07/30/2022 00:31
13C2 PFDoA	0.94	0.87	92	25-150		07/30/2022 00:31
13C2 PFTeDA	0.94	0.89	95	25-150		07/30/2022 00:31
13C3 HFPO-DA	0.94	0.85	90	25-150		07/30/2022 00:31
d7-N-MeFOSE	0.94	0.0059	1	10-150	R	07/30/2022 00:31
d9-N-EtFOSE	0.94	0.0084	1	10-150	R	07/30/2022 00:31
d3-N-MeFOSA	0.94	0.0011	0	10-150	R	07/30/2022 00:31
d5-N-EtFOSA	0.94	0.0013	0	10-150	R	07/30/2022 00:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK06-HA01(0-6)
 Lab Sample ID 10616212006
 Lab File ID B220729B_046
 Matrix Soil
 Collected 07/06/2022 11:10
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.29g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.85	5.71	20		07/30/2022 00:31
13C4 PFOA	N/A	N/A	7.13	6.96	20		07/30/2022 00:31
13C2 PFDA	N/A	N/A	8.43	8.27	18		07/30/2022 00:31
13C4 PFOS	N/A	N/A	8.90	8.75	14		07/30/2022 00:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.26	26		07/30/2022 00:31
13C5 PFPeA	N/A	N/A	5.17	5.13	24		07/30/2022 00:31
13C3 PFBS	N/A	N/A	6.08	5.96	15		07/30/2022 00:31
13C2 4:2FTS	N/A	N/A	5.58	5.48	71		07/30/2022 00:31
13C5 PFHxA	N/A	N/A	5.85	5.73	20		07/30/2022 00:31
13C4 PFHpA	N/A	N/A	6.49	6.32	16		07/30/2022 00:31
13C3 PFHxS	N/A	N/A	7.52	7.52	18		07/30/2022 00:31
13C2 6:2FTS	N/A	N/A	6.80	6.67	10		07/30/2022 00:31
13C8 PFOA	N/A	N/A	7.13	6.94	26		07/30/2022 00:31
13C9 PFNA	N/A	N/A	7.77	7.76	24		07/30/2022 00:31
13C8 PFOS	N/A	N/A	8.90	8.80	14		07/30/2022 00:31
13C2 8:2FTS	N/A	N/A	8.06	7.94	12		07/30/2022 00:31
13C6 PFDA	N/A	N/A	8.43	8.32	20		07/30/2022 00:31
d3-MeFOSAA	N/A	N/A	8.30	8.19	12		07/30/2022 00:31
13C8 PFOSA	N/A	N/A	10.64	10.61	15		07/30/2022 00:31
d5-EtFOSAA	N/A	N/A	8.59	8.49	10		07/30/2022 00:31
13C7 PFUdA	N/A	N/A	9.11	9.00	24		07/30/2022 00:31
13C2 PFDoA	N/A	N/A	9.79	9.67	13		07/30/2022 00:31
13C2 PFTeDA	N/A	N/A	11.12	11.00	10		07/30/2022 00:31
13C3 HFPO-DA	N/A	N/A	6.12	5.97	20		07/30/2022 00:31
d7-N-MeFOSE	N/A	N/A	12.48	12.38	25	R	07/30/2022 00:31
d9-N-EtFOSE	N/A	N/A	12.95	12.96	86	R	07/30/2022 00:31
d3-N-MeFOSA	N/A	N/A	12.67	12.64	21	R	07/30/2022 00:31
d5-N-EtFOSA	N/A	N/A	13.10	13.11	46	R	07/30/2022 00:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK06-HA01(0-6)
 Lab Sample ID 10616212006
 Lab File ID B220729B_046
 Matrix Soil
 Collected 07/06/2022 11:10
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.29g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	11		07/30/2022 00:31
PFPeA	N/A	N/A	5.18	5.12	39		07/30/2022 00:31
HFPO-DA	0.00	0.32	0.00	6.02	ND		07/30/2022 00:31
PFBS	0.29	0.41	6.07	6.05	ND		07/30/2022 00:31
PFHxA	0.08	0.08	5.86	5.88	15		07/30/2022 00:31
4:2 FTS	0.00	0.83	0.00	5.49	ND		07/30/2022 00:31
PFPeS	0.00	0.46	0.00	6.73	ND		07/30/2022 00:31
PFHpA	0.31	0.32	6.50	6.39	21		07/30/2022 00:31
DONA	0.00	0.56	0.00	6.62	ND		07/30/2022 00:31
PFHxS	0.47	0.41	7.53	7.43	ND		07/30/2022 00:31
PFOA	0.36	0.40	7.14	7.03	19		07/30/2022 00:31
6:2 FTS	0.69	0.81	6.81	6.72	ND		07/30/2022 00:31
PFHpS	0.00	0.38	0.00	8.13	ND		07/30/2022 00:31
PFNA	0.14	0.13	7.78	7.80	27	J	07/30/2022 00:31
PFOSAm	N/A	N/A	10.64	10.55	ND		07/30/2022 00:31
PFOS	0.38	0.41	8.91	8.81	ND		07/30/2022 00:31
MeFOSA	0.00	0.59	0.00	12.73	ND		07/30/2022 00:31
PFDA	0.15	0.14	8.44	8.34	34		07/30/2022 00:31
EtFOSAm	0.00	0.60	0.00	13.03	ND		07/30/2022 00:31
8:2 FTS	0.90	1.00	8.07	7.95	69		07/30/2022 00:31
9-Cl-PF3ON	0.00	0.06	0.00	9.31	ND		07/30/2022 00:31
PFNS	0.00	0.54	0.00	9.52	ND		07/30/2022 00:31
PFUnDA	0.12	0.14	9.11	9.11	12	J	07/30/2022 00:31
NMeFOSAA	0.00	0.87	0.00	8.31	ND		07/30/2022 00:31
NEtFOSAA	0.00	0.61	0.00	8.51	ND		07/30/2022 00:31
PFDS	0.00	0.37	0.00	10.16	ND		07/30/2022 00:31
PFDOA	0.20	0.17	9.79	9.69	18	J	07/30/2022 00:31
MeFOSE	N/A	N/A	0.00	12.41	ND		07/30/2022 00:31
EtFOSE	0.00	0.00	0.00	12.89	ND		07/30/2022 00:31
11-Cl-PF3OUdS	0.00	0.02	0.00	10.64	ND		07/30/2022 00:31
PFTTrDA	0.16	0.17	10.46	10.46	ND		07/30/2022 00:31
PFDoS	0.00	0.53	0.00	11.39	ND		07/30/2022 00:31
PFTDA	0.30	0.29	11.12	11.00	ND		07/30/2022 00:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK07-HA01(0-6)
 Lab Sample ID 10616212007
 Lab File ID B220729B_047
 Matrix Soil
 Collected 07/06/2022 11:25
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.17g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.17	0.097	0.027	0.027	1	375-22-4		07/30/2022 00:51
PFPeA	0.44	0.097	0.028	0.028	1	2706-90-3		07/30/2022 00:51
HFPO-DA	ND	0.097	0.027	0.027	1	13252-13-6		07/30/2022 00:51
PFBS	ND	0.086	0.025	0.025	1	375-73-5		07/30/2022 00:51
PFHxA	0.24	0.097	0.027	0.027	1	307-24-4		07/30/2022 00:51
4:2 FTS	ND	0.090	0.022	0.022	1	757124-72-4		07/30/2022 00:51
PFPeS	ND	0.091	0.023	0.023	1	2706-91-4		07/30/2022 00:51
PFHpA	0.24	0.097	0.034	0.034	1	375-85-9		07/30/2022 00:51
DONA	ND	0.091	0.035	0.035	1	919005-14-4		07/30/2022 00:51
PFHxS	0.039 J	0.088	0.021	0.021	1	355-46-4		07/30/2022 00:51
PFOA	0.38	0.097	0.030	0.030	1	335-67-1		07/30/2022 00:51
6:2 FTS	ND	0.092	0.040	0.040	1	27619-97-2		07/30/2022 00:51
PFHpS	ND	0.092	0.027	0.027	1	375-92-8		07/30/2022 00:51
PFNA	0.20	0.097	0.030	0.030	1	375-95-1		07/30/2022 00:51
PFOSAm	ND	0.097	0.028	0.028	1	754-91-6		07/30/2022 00:51
PFOS	0.39	0.089	0.029	0.029	1	1763-23-1		07/30/2022 00:51
MeFOSA	ND	0.097	0.026	0.026	1	31506-32-8		07/30/2022 00:51
PFDA	0.24	0.097	0.022	0.022	1	335-76-2		07/30/2022 00:51
EtFOSAm	ND	0.097	0.025	0.025	1	4151-50-2		07/30/2022 00:51
8:2 FTS	ND	0.093	0.042	0.042	1	39108-34-4		07/30/2022 00:51
9-CI-PF3ON	ND	0.090	0.024	0.024	1	756426-58-1		07/30/2022 00:51
PFNS	ND	0.093	0.034	0.034	1	68259-12-1		07/30/2022 00:51
PFUnDA	0.10	0.097	0.029	0.029	1	2058-94-8		07/30/2022 00:51
NMeFOSAA	ND	0.097	0.027	0.027	1	2355-31-9		07/30/2022 00:51
NEtFOSAA	ND	0.097	0.039	0.039	1	2991-50-6		07/30/2022 00:51
PFDS	ND	0.093	0.027	0.027	1	335-77-3		07/30/2022 00:51
PFDOA	0.060 J	0.097	0.032	0.032	1	307-55-1		07/30/2022 00:51
MeFOSE	ND	0.097	0.029	0.029	1	24448-09-7		07/30/2022 00:51
EtFOSE	ND	0.097	0.031	0.031	1	1691-99-2		07/30/2022 00:51
11-CI-PF3OUdS	ND	0.091	0.024	0.024	1	763051-92-9		07/30/2022 00:51
PFTTrDA	ND	0.097	0.031	0.031	1	72629-94-8		07/30/2022 00:51
PFDoS	ND	0.094	0.025	0.025	1	79780-39-5		07/30/2022 00:51
PFTDA	ND	0.097	0.033	0.033	1	376-06-7		07/30/2022 00:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK07-HA01(0-6)
 Lab Sample ID 10616212007
 Lab File ID B220729B_047
 Matrix Soil
 Collected 07/06/2022 11:25
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.17g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.97	1.2	120	50-150		07/30/2022 00:51
13C4 PFOA	0.97	1.1	112	50-150		07/30/2022 00:51
13C2 PFDA	0.97	1.2	125	50-150		07/30/2022 00:51
13C4 PFOS	0.93	1.1	119	50-150		07/30/2022 00:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.97	0.90	93	25-150		07/30/2022 00:51
13C5 PFPeA	0.97	0.84	87	25-150		07/30/2022 00:51
13C3 PFBS	0.90	0.87	97	25-150		07/30/2022 00:51
13C2 4:2FTS	0.90	0.84	93	25-150		07/30/2022 00:51
13C5 PFHxA	0.97	0.96	99	25-150		07/30/2022 00:51
13C4 PFHpA	0.97	0.91	94	25-150		07/30/2022 00:51
13C3 PFHxS	0.91	1.00	109	25-150		07/30/2022 00:51
13C2 6:2FTS	0.92	0.81	89	25-150		07/30/2022 00:51
13C8 PFOA	0.97	0.94	98	25-150		07/30/2022 00:51
13C9 PFNA	0.97	0.95	99	25-150		07/30/2022 00:51
13C8 PFOS	0.93	0.89	97	25-150		07/30/2022 00:51
13C2 8:2FTS	0.93	1.2	128	25-150		07/30/2022 00:51
13C6 PFDA	0.97	0.95	98	25-150		07/30/2022 00:51
d3-MeFOSAA	0.97	0.89	92	25-150		07/30/2022 00:51
13C8 PFOSA	0.97	0.47	48	25-150		07/30/2022 00:51
d5-EtFOSAA	0.97	1.1	110	25-150		07/30/2022 00:51
13C7 PFUdA	0.97	1.0	104	25-150		07/30/2022 00:51
13C2 PFDoA	0.97	1.0	107	25-150		07/30/2022 00:51
13C2 PFTeDA	0.97	1.1	113	25-150		07/30/2022 00:51
13C3 HFPO-DA	0.97	0.87	90	25-150		07/30/2022 00:51
d7-N-MeFOSE	0.97	0.016	2	10-150	R	07/30/2022 00:51
d9-N-EtFOSE	0.97	0.029	3	10-150	R	07/30/2022 00:51
d3-N-MeFOSA	0.97	0.0019	0	10-150	R	07/30/2022 00:51
d5-N-EtFOSA	0.97	0.0047	0	10-150	R	07/30/2022 00:51

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 Lab File ID B220729B_047
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Total Amount Extracted 5.17g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.84	5.71	20		07/30/2022 00:51
13C4 PFOA	N/A	N/A	7.11	6.96	17		07/30/2022 00:51
13C2 PFDA	N/A	N/A	8.43	8.27	18		07/30/2022 00:51
13C4 PFOS	N/A	N/A	8.89	8.75	11		07/30/2022 00:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.26	22		07/30/2022 00:51
13C5 PFPeA	N/A	N/A	5.17	5.13	21		07/30/2022 00:51
13C3 PFBS	N/A	N/A	6.07	5.96	19		07/30/2022 00:51
13C2 4:2FTS	N/A	N/A	5.57	5.48	49		07/30/2022 00:51
13C5 PFHxA	N/A	N/A	5.84	5.73	20		07/30/2022 00:51
13C4 PFHpA	N/A	N/A	6.48	6.32	16		07/30/2022 00:51
13C3 PFHxS	N/A	N/A	7.51	7.52	17		07/30/2022 00:51
13C2 6:2FTS	N/A	N/A	6.79	6.67	12		07/30/2022 00:51
13C8 PFOA	N/A	N/A	7.11	6.94	21		07/30/2022 00:51
13C9 PFNA	N/A	N/A	7.76	7.76	25		07/30/2022 00:51
13C8 PFOS	N/A	N/A	8.89	8.80	14		07/30/2022 00:51
13C2 8:2FTS	N/A	N/A	8.06	7.94	14		07/30/2022 00:51
13C6 PFDA	N/A	N/A	8.43	8.32	16		07/30/2022 00:51
d3-MeFOSAA	N/A	N/A	8.30	8.19	16		07/30/2022 00:51
13C8 PFOSA	N/A	N/A	10.62	10.61	18		07/30/2022 00:51
d5-EtFOSAA	N/A	N/A	8.59	8.49	15		07/30/2022 00:51
13C7 PFUdA	N/A	N/A	9.10	9.00	30		07/30/2022 00:51
13C2 PFDoA	N/A	N/A	9.78	9.67	12		07/30/2022 00:51
13C2 PFTeDA	N/A	N/A	11.09	11.00	10		07/30/2022 00:51
13C3 HFPO-DA	N/A	N/A	6.10	5.97	18		07/30/2022 00:51
d7-N-MeFOSE	N/A	N/A	12.46	12.38	33	R	07/30/2022 00:51
d9-N-EtFOSE	N/A	N/A	12.93	12.96	15	R	07/30/2022 00:51
d3-N-MeFOSA	N/A	N/A	12.66	12.64	29	R	07/30/2022 00:51
d5-N-EtFOSA	N/A	N/A	13.09	13.11	10	R	07/30/2022 00:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK07-HA01(0-6)
 Lab Sample ID 10616212007
 Lab File ID B220729B_047
 Matrix Soil
 Collected 07/06/2022 11:25
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.17g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	15		07/30/2022 00:51
PFPeA	N/A	N/A	5.17	5.12	32		07/30/2022 00:51
HFPO-DA	1.70	0.32	6.11	6.02	ND		07/30/2022 00:51
PFBS	0.21	0.41	6.06	6.05	ND		07/30/2022 00:51
PFHxA	0.08	0.08	5.85	5.88	18		07/30/2022 00:51
4:2 FTS	0.00	0.83	0.00	5.49	ND		07/30/2022 00:51
PFPeS	0.64	0.46	6.81	6.73	ND		07/30/2022 00:51
PFHpA	0.30	0.32	6.49	6.39	23		07/30/2022 00:51
DONA	0.00	0.56	0.00	6.62	ND		07/30/2022 00:51
PFHxS	0.40	0.41	7.51	7.43	46	J	07/30/2022 00:51
PFOA	0.38	0.40	7.12	7.03	29		07/30/2022 00:51
6:2 FTS	0.59	0.81	6.79	6.72	ND		07/30/2022 00:51
PFHpS	0.51	0.38	8.22	8.13	ND		07/30/2022 00:51
PFNA	0.15	0.13	7.77	7.80	46		07/30/2022 00:51
PFOSAm	N/A	N/A	10.63	10.55	ND		07/30/2022 00:51
PFOS	0.42	0.41	8.90	8.81	57		07/30/2022 00:51
MeFOSA	0.00	0.59	0.00	12.73	ND		07/30/2022 00:51
PFDA	0.16	0.14	8.44	8.44	31		07/30/2022 00:51
EtFOSAm	0.00	0.60	0.00	13.03	ND		07/30/2022 00:51
8:2 FTS	0.84	1.00	8.06	7.95	ND		07/30/2022 00:51
9-CI-PF3ON	0.00	0.06	0.00	9.31	ND		07/30/2022 00:51
PFNS	0.00	0.54	0.00	9.52	ND		07/30/2022 00:51
PFUnDA	0.14	0.14	9.11	9.11	86		07/30/2022 00:51
NMeFOSAA	1.20	0.87	8.30	8.31	ND		07/30/2022 00:51
NEtFOSAA	0.00	0.61	0.00	8.51	ND		07/30/2022 00:51
PFDS	0.40	0.37	10.26	10.16	ND		07/30/2022 00:51
PFDOA	0.16	0.17	9.78	9.69	12	J	07/30/2022 00:51
MeFOSE	N/A	N/A	0.00	12.41	ND		07/30/2022 00:51
EtFOSE	0.00	0.00	0.00	12.89	ND		07/30/2022 00:51
11-CI-PF3OUdS	0.00	0.02	0.00	10.64	ND		07/30/2022 00:51
PFTTrDA	0.20	0.17	10.45	10.36	ND		07/30/2022 00:51
PFDoS	0.00	0.53	0.00	11.39	ND		07/30/2022 00:51
PFTDA	0.22	0.29	11.10	11.10	ND		07/30/2022 00:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK08-HA01(0-6)
 Lab Sample ID 10616212008
 Lab File ID B220729B_048
 Matrix Soil
 Collected 07/06/2022 12:50
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.29g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.11	0.095	0.027	0.027	1	375-22-4		07/30/2022 01:11
PFPeA	0.49	0.095	0.027	0.027	1	2706-90-3		07/30/2022 01:11
HFPO-DA	ND	0.095	0.026	0.026	1	13252-13-6		07/30/2022 01:11
PFBS	ND	0.084	0.025	0.025	1	375-73-5		07/30/2022 01:11
PFHxA	0.24	0.095	0.026	0.026	1	307-24-4		07/30/2022 01:11
4:2 FTS	ND	0.088	0.022	0.022	1	757124-72-4		07/30/2022 01:11
PFPeS	ND	0.089	0.023	0.023	1	2706-91-4		07/30/2022 01:11
PFHpA	0.24	0.095	0.033	0.033	1	375-85-9		07/30/2022 01:11
DONA	ND	0.089	0.034	0.034	1	919005-14-4		07/30/2022 01:11
PFHxS	ND	0.086	0.021	0.021	1	355-46-4		07/30/2022 01:11
PFOA	0.31	0.095	0.029	0.029	1	335-67-1		07/30/2022 01:11
6:2 FTS	0.084 J	0.090	0.039	0.039	1	27619-97-2		07/30/2022 01:11
PFHpS	ND	0.090	0.026	0.026	1	375-92-8		07/30/2022 01:11
PFNA	0.48	0.095	0.029	0.029	1	375-95-1		07/30/2022 01:11
PFOSAm	ND	0.095	0.028	0.028	1	754-91-6		07/30/2022 01:11
PFOS	0.28	0.087	0.028	0.028	1	1763-23-1		07/30/2022 01:11
MeFOSA	ND	0.095	0.026	0.026	1	31506-32-8		07/30/2022 01:11
PFDA	0.71	0.095	0.022	0.022	1	335-76-2		07/30/2022 01:11
EtFOSAm	ND	0.095	0.024	0.024	1	4151-50-2		07/30/2022 01:11
8:2 FTS	0.23	0.091	0.042	0.042	1	39108-34-4		07/30/2022 01:11
9-CI-PF3ON	ND	0.088	0.024	0.024	1	756426-58-1		07/30/2022 01:11
PFNS	ND	0.091	0.033	0.033	1	68259-12-1		07/30/2022 01:11
PFUnDA	0.31	0.095	0.029	0.029	1	2058-94-8		07/30/2022 01:11
NMeFOSAA	ND	0.095	0.027	0.027	1	2355-31-9		07/30/2022 01:11
NEtFOSAA	ND	0.095	0.038	0.038	1	2991-50-6		07/30/2022 01:11
PFDS	ND	0.091	0.027	0.027	1	335-77-3		07/30/2022 01:11
PFDOA	0.20	0.095	0.031	0.031	1	307-55-1		07/30/2022 01:11
MeFOSE	ND	0.095	0.029	0.029	1	24448-09-7		07/30/2022 01:11
EtFOSE	ND	0.095	0.030	0.030	1	1691-99-2		07/30/2022 01:11
11-CI-PF3OUdS	ND	0.089	0.024	0.024	1	763051-92-9		07/30/2022 01:11
PFTTrDA	0.043 J	0.095	0.030	0.030	1	72629-94-8		07/30/2022 01:11
PFDoS	ND	0.092	0.025	0.025	1	79780-39-5		07/30/2022 01:11
PFTDA	ND	0.095	0.032	0.032	1	376-06-7		07/30/2022 01:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK08-HA01(0-6)
 Lab Sample ID 10616212008
 Lab File ID B220729B_048
 Matrix Soil
 Collected 07/06/2022 12:50
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.29g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.95	0.64	68	50-150		07/30/2022 01:11
13C4 PFOA	0.95	0.72	76	50-150		07/30/2022 01:11
13C2 PFDA	0.95	0.71	75	50-150		07/30/2022 01:11
13C4 PFOS	0.90	0.65	72	50-150		07/30/2022 01:11

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.95	0.56	59	25-150		07/30/2022 01:11
13C5 PFPeA	0.95	0.53	56	25-150		07/30/2022 01:11
13C3 PFBS	0.88	0.52	59	25-150		07/30/2022 01:11
13C2 4:2FTS	0.88	0.53	60	25-150		07/30/2022 01:11
13C5 PFHxA	0.95	0.56	60	25-150		07/30/2022 01:11
13C4 PFHpA	0.95	0.57	60	25-150		07/30/2022 01:11
13C3 PFHxS	0.89	0.54	61	25-150		07/30/2022 01:11
13C2 6:2FTS	0.90	0.53	59	25-150		07/30/2022 01:11
13C8 PFOA	0.95	0.59	63	25-150		07/30/2022 01:11
13C9 PFNA	0.95	0.57	60	25-150		07/30/2022 01:11
13C8 PFOS	0.90	0.55	60	25-150		07/30/2022 01:11
13C2 8:2FTS	0.91	0.65	72	25-150		07/30/2022 01:11
13C6 PFDA	0.95	0.57	60	25-150		07/30/2022 01:11
d3-MeFOSAA	0.95	0.60	63	25-150		07/30/2022 01:11
13C8 PFOSA	0.95	0.39	41	25-150		07/30/2022 01:11
d5-EtFOSAA	0.95	0.56	59	25-150		07/30/2022 01:11
13C7 PFUdA	0.95	0.56	60	25-150		07/30/2022 01:11
13C2 PFDoA	0.95	0.56	59	25-150		07/30/2022 01:11
13C2 PFTeDA	0.95	0.62	65	25-150		07/30/2022 01:11
13C3 HFPO-DA	0.95	0.54	57	25-150		07/30/2022 01:11
d7-N-MeFOSE	0.95	0.017	2	10-150	R	07/30/2022 01:11
d9-N-EtFOSE	0.95	0.027	3	10-150	R	07/30/2022 01:11
d3-N-MeFOSA	0.95	0.0024	0	10-150	R	07/30/2022 01:11
d5-N-EtFOSA	0.95	0.0043	0	10-150	R	07/30/2022 01:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK08-HA01(0-6)
 Lab Sample ID 10616212008
 Lab File ID B220729B_048
 Matrix Soil
 Collected 07/06/2022 12:50
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.29g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.85	5.71	13		07/30/2022 01:11
13C4 PFOA	N/A	N/A	7.13	6.96	22		07/30/2022 01:11
13C2 PFDA	N/A	N/A	8.43	8.27	17		07/30/2022 01:11
13C4 PFOS	N/A	N/A	8.89	8.75	12		07/30/2022 01:11

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.26	21		07/30/2022 01:11
13C5 PFPeA	N/A	N/A	5.17	5.13	18		07/30/2022 01:11
13C3 PFBS	N/A	N/A	6.08	5.96	12		07/30/2022 01:11
13C2 4:2FTS	N/A	N/A	5.58	5.48	44		07/30/2022 01:11
13C5 PFHxA	N/A	N/A	5.85	5.73	13		07/30/2022 01:11
13C4 PFHpA	N/A	N/A	6.49	6.32	11		07/30/2022 01:11
13C3 PFHxS	N/A	N/A	7.52	7.52	15		07/30/2022 01:11
13C2 6:2FTS	N/A	N/A	6.80	6.67	67		07/30/2022 01:11
13C8 PFOA	N/A	N/A	7.13	6.94	24		07/30/2022 01:11
13C9 PFNA	N/A	N/A	7.77	7.76	21		07/30/2022 01:11
13C8 PFOS	N/A	N/A	8.89	8.80	13		07/30/2022 01:11
13C2 8:2FTS	N/A	N/A	8.06	7.94	11		07/30/2022 01:11
13C6 PFDA	N/A	N/A	8.43	8.32	17		07/30/2022 01:11
d3-MeFOSAA	N/A	N/A	8.30	8.19	14		07/30/2022 01:11
13C8 PFOSA	N/A	N/A	10.63	10.61	13		07/30/2022 01:11
d5-EtFOSAA	N/A	N/A	8.59	8.49	14		07/30/2022 01:11
13C7 PFUdA	N/A	N/A	9.10	9.00	21		07/30/2022 01:11
13C2 PFDoA	N/A	N/A	9.78	9.67	12		07/30/2022 01:11
13C2 PFTeDA	N/A	N/A	11.11	11.00	98		07/30/2022 01:11
13C3 HFPO-DA	N/A	N/A	6.11	5.97	16		07/30/2022 01:11
d7-N-MeFOSE	N/A	N/A	12.47	12.38	40	R	07/30/2022 01:11
d9-N-EtFOSE	N/A	N/A	12.94	12.96	17	R	07/30/2022 01:11
d3-N-MeFOSA	N/A	N/A	12.68	12.64	52	R	07/30/2022 01:11
d5-N-EtFOSA	N/A	N/A	13.10	13.11	11	R	07/30/2022 01:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK08-HA01(0-6)
 Lab Sample ID 10616212008
 Lab File ID B220729B_048
 Matrix Soil
 Collected 07/06/2022 12:50
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.29g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.32	4.31	89		07/30/2022 01:11
PFPeA	N/A	N/A	5.18	5.12	27		07/30/2022 01:11
HFPO-DA	1.30	0.32	6.14	6.02	ND		07/30/2022 01:11
PFBS	0.00	0.41	0.00	6.05	ND		07/30/2022 01:11
PFHxA	0.09	0.08	5.86	5.88	14		07/30/2022 01:11
4:2 FTS	0.00	0.83	0.00	5.49	ND		07/30/2022 01:11
PFPeS	0.58	0.46	6.82	6.73	ND		07/30/2022 01:11
PFHpA	0.32	0.32	6.50	6.39	22		07/30/2022 01:11
DONA	0.00	0.56	0.00	6.62	ND		07/30/2022 01:11
PFHxS	0.40	0.41	7.53	7.43	ND		07/30/2022 01:11
PFOA	0.37	0.40	7.14	7.03	20		07/30/2022 01:11
6:2 FTS	0.75	0.81	6.81	6.72	22	J	07/30/2022 01:11
PFHpS	0.00	0.38	0.00	8.13	ND		07/30/2022 01:11
PFNA	0.13	0.13	7.78	7.80	64		07/30/2022 01:11
PFOSAm	N/A	N/A	10.63	10.55	ND		07/30/2022 01:11
PFOS	0.46	0.41	8.90	8.81	47		07/30/2022 01:11
MeFOSA	0.00	0.59	0.00	12.73	ND		07/30/2022 01:11
PFDA	0.18	0.14	8.44	8.44	42		07/30/2022 01:11
EtFOSAm	0.00	0.60	0.00	13.03	ND		07/30/2022 01:11
8:2 FTS	1.10	1.00	8.07	7.95	64		07/30/2022 01:11
9-Cl-PF3ON	0.00	0.06	0.00	9.31	ND		07/30/2022 01:11
PFNS	0.00	0.54	0.00	9.52	ND		07/30/2022 01:11
PFUnDA	0.14	0.14	9.11	9.11	16		07/30/2022 01:11
NMeFOSAA	0.00	0.87	0.00	8.31	ND		07/30/2022 01:11
NEtFOSAA	0.00	0.61	0.00	8.51	ND		07/30/2022 01:11
PFDS	2.80	0.37	10.07	10.16	ND		07/30/2022 01:11
PFDOA	0.20	0.17	9.79	9.69	19		07/30/2022 01:11
MeFOSE	N/A	N/A	0.00	12.41	ND		07/30/2022 01:11
EtFOSE	0.00	0.00	0.00	12.89	ND		07/30/2022 01:11
11-Cl-PF3OUdS	0.00	0.02	0.00	10.64	ND		07/30/2022 01:11
PFTTrDA	0.17	0.17	10.46	10.46	30	J	07/30/2022 01:11
PFDoS	0.00	0.53	0.00	11.39	ND		07/30/2022 01:11
PFTDA	0.23	0.29	11.10	11.10	ND		07/30/2022 01:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK09-HA01(0-6)
 Lab Sample ID 10616212009
 Lab File ID B220729B_049
 Matrix Soil
 Collected 07/06/2022 13:50
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.01g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.097 J	0.100	0.028	0.028	1	375-22-4		07/30/2022 01:31
PFPeA	0.30	0.100	0.028	0.028	1	2706-90-3		07/30/2022 01:31
HFPO-DA	ND	0.100	0.028	0.028	1	13252-13-6		07/30/2022 01:31
PFBS	ND	0.088	0.026	0.026	1	375-73-5		07/30/2022 01:31
PFHxA	0.19	0.100	0.027	0.027	1	307-24-4		07/30/2022 01:31
4:2 FTS	ND	0.093	0.023	0.023	1	757124-72-4		07/30/2022 01:31
PFPeS	ND	0.094	0.024	0.024	1	2706-91-4		07/30/2022 01:31
PFHpA	0.19	0.100	0.035	0.035	1	375-85-9		07/30/2022 01:31
DONA	ND	0.094	0.036	0.036	1	919005-14-4		07/30/2022 01:31
PFHxS	ND	0.091	0.022	0.022	1	355-46-4		07/30/2022 01:31
PFOA	0.39	0.100	0.031	0.031	1	335-67-1		07/30/2022 01:31
6:2 FTS	ND	0.095	0.041	0.041	1	27619-97-2		07/30/2022 01:31
PFHpS	ND	0.095	0.028	0.028	1	375-92-8		07/30/2022 01:31
PFNA	0.22	0.100	0.031	0.031	1	375-95-1		07/30/2022 01:31
PFOSAm	ND	0.100	0.029	0.029	1	754-91-6		07/30/2022 01:31
PFOS	0.063 J	0.092	0.030	0.030	1	1763-23-1		07/30/2022 01:31
MeFOSA	ND	0.100	0.027	0.027	1	31506-32-8		07/30/2022 01:31
PFDA	0.19	0.100	0.023	0.023	1	335-76-2		07/30/2022 01:31
EtFOSAm	ND	0.100	0.026	0.026	1	4151-50-2		07/30/2022 01:31
8:2 FTS	0.12	0.096	0.044	0.044	1	39108-34-4		07/30/2022 01:31
9-CI-PF3ON	ND	0.093	0.025	0.025	1	756426-58-1		07/30/2022 01:31
PFNS	ND	0.096	0.035	0.035	1	68259-12-1		07/30/2022 01:31
PFUnDA	0.058 J	0.100	0.030	0.030	1	2058-94-8		07/30/2022 01:31
NMeFOSAA	ND	0.100	0.028	0.028	1	2355-31-9		07/30/2022 01:31
NEtFOSAA	ND	0.100	0.040	0.040	1	2991-50-6		07/30/2022 01:31
PFDS	ND	0.096	0.028	0.028	1	335-77-3		07/30/2022 01:31
PFDOA	0.054 J	0.100	0.033	0.033	1	307-55-1		07/30/2022 01:31
MeFOSE	ND	0.100	0.030	0.030	1	24448-09-7		07/30/2022 01:31
EtFOSE	ND	0.100	0.032	0.032	1	1691-99-2		07/30/2022 01:31
11-CI-PF3OUdS	ND	0.094	0.025	0.025	1	763051-92-9		07/30/2022 01:31
PFTTrDA	ND	0.100	0.032	0.032	1	72629-94-8		07/30/2022 01:31
PFDoS	ND	0.097	0.026	0.026	1	79780-39-5		07/30/2022 01:31
PFTDA	ND	0.100	0.034	0.034	1	376-06-7		07/30/2022 01:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK09-HA01(0-6)
 Lab Sample ID 10616212009
 Lab File ID B220729B_049
 Matrix Soil
 Collected 07/06/2022 13:50
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.01g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	1.00	1.1	114	50-150		07/30/2022 01:31
13C4 PFOA	1.00	1.0	101	50-150		07/30/2022 01:31
13C2 PFDA	1.00	1.0	104	50-150		07/30/2022 01:31
13C4 PFOS	0.96	1.1	112	50-150		07/30/2022 01:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	1.00	0.92	92	25-150		07/30/2022 01:31
13C5 PFPeA	1.00	0.85	86	25-150		07/30/2022 01:31
13C3 PFBS	0.93	0.86	92	25-150		07/30/2022 01:31
13C2 4:2FTS	0.93	1.1	113	25-150		07/30/2022 01:31
13C5 PFHxA	1.00	0.93	93	25-150		07/30/2022 01:31
13C4 PFHpA	1.00	0.87	87	25-150		07/30/2022 01:31
13C3 PFHxS	0.94	0.94	100	25-150		07/30/2022 01:31
13C2 6:2FTS	0.95	0.90	95	25-150		07/30/2022 01:31
13C8 PFOA	1.00	0.91	92	25-150		07/30/2022 01:31
13C9 PFNA	1.00	0.96	97	25-150		07/30/2022 01:31
13C8 PFOS	0.96	0.87	91	25-150		07/30/2022 01:31
13C2 8:2FTS	0.96	1.2	121	25-150		07/30/2022 01:31
13C6 PFDA	1.00	0.89	89	25-150		07/30/2022 01:31
d3-MeFOSAA	1.00	1.00	100	25-150		07/30/2022 01:31
13C8 PFOSA	1.00	0.59	59	25-150		07/30/2022 01:31
d5-EtFOSAA	1.00	1.0	105	25-150		07/30/2022 01:31
13C7 PFUdA	1.00	1.0	103	25-150		07/30/2022 01:31
13C2 PFDoA	1.00	1.0	103	25-150		07/30/2022 01:31
13C2 PFTeDA	1.00	1.1	107	25-150		07/30/2022 01:31
13C3 HFPO-DA	1.00	0.86	86	25-150		07/30/2022 01:31
d7-N-MeFOSE	1.00	0.011	1	10-150	R	07/30/2022 01:31
d9-N-EtFOSE	1.00	0.024	2	10-150	R	07/30/2022 01:31
d3-N-MeFOSA	1.00	0.0017	0	10-150	R	07/30/2022 01:31
d5-N-EtFOSA	1.00	0.0028	0	10-150	R	07/30/2022 01:31

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 PFAS by Isotope Dilution

Client Sample ID PR-TK09-HA01(0-6)
 Lab Sample ID 10616212009
 Lab File ID B220729B_049
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 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.01g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.82	5.71	21		07/30/2022 01:31
13C4 PFOA	N/A	N/A	7.10	6.96	19		07/30/2022 01:31
13C2 PFDA	N/A	N/A	8.41	8.27	12		07/30/2022 01:31
13C4 PFOS	N/A	N/A	8.87	8.75	16		07/30/2022 01:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.26	21		07/30/2022 01:31
13C5 PFPeA	N/A	N/A	5.15	5.13	28		07/30/2022 01:31
13C3 PFBS	N/A	N/A	6.05	5.96	13		07/30/2022 01:31
13C2 4:2FTS	N/A	N/A	5.56	5.48	69		07/30/2022 01:31
13C5 PFHxA	N/A	N/A	5.82	5.73	20		07/30/2022 01:31
13C4 PFHpA	N/A	N/A	6.47	6.32	13		07/30/2022 01:31
13C3 PFHxS	N/A	N/A	7.49	7.52	16		07/30/2022 01:31
13C2 6:2FTS	N/A	N/A	6.78	6.67	12		07/30/2022 01:31
13C8 PFOA	N/A	N/A	7.11	6.94	23		07/30/2022 01:31
13C9 PFNA	N/A	N/A	7.75	7.76	22		07/30/2022 01:31
13C8 PFOS	N/A	N/A	8.87	8.80	19		07/30/2022 01:31
13C2 8:2FTS	N/A	N/A	8.04	7.94	22		07/30/2022 01:31
13C6 PFDA	N/A	N/A	8.41	8.32	14		07/30/2022 01:31
d3-MeFOSAA	N/A	N/A	8.28	8.19	16		07/30/2022 01:31
13C8 PFOSA	N/A	N/A	10.60	10.61	15		07/30/2022 01:31
d5-EtFOSAA	N/A	N/A	8.57	8.49	13		07/30/2022 01:31
13C7 PFUdA	N/A	N/A	9.08	9.00	22		07/30/2022 01:31
13C2 PFDoA	N/A	N/A	9.76	9.67	14		07/30/2022 01:31
13C2 PFTeDA	N/A	N/A	11.08	11.00	11		07/30/2022 01:31
13C3 HFPO-DA	N/A	N/A	6.09	5.97	14		07/30/2022 01:31
d7-N-MeFOSE	N/A	N/A	12.44	12.38	31	R	07/30/2022 01:31
d9-N-EtFOSE	N/A	N/A	12.91	12.96	11	R	07/30/2022 01:31
d3-N-MeFOSA	N/A	N/A	12.65	12.64	29	R	07/30/2022 01:31
d5-N-EtFOSA	N/A	N/A	13.07	13.11	51	R	07/30/2022 01:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK09-HA01(0-6)
 Lab Sample ID 10616212009
 Lab File ID B220729B_049
 Matrix Soil
 Collected 07/06/2022 13:50
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.01g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	11	J	07/30/2022 01:31
PFPeA	N/A	N/A	5.16	5.12	25		07/30/2022 01:31
HFPO-DA	1.50	0.32	6.10	6.02	ND		07/30/2022 01:31
PFBS	0.30	0.41	6.04	6.05	ND		07/30/2022 01:31
PFHxA	0.07	0.08	5.83	5.88	15		07/30/2022 01:31
4:2 FTS	0.00	0.83	0.00	5.49	ND		07/30/2022 01:31
PFPeS	1.00	0.46	6.80	6.73	ND		07/30/2022 01:31
PFHpA	0.28	0.32	6.47	6.39	23		07/30/2022 01:31
DONA	0.00	0.56	0.00	6.62	ND		07/30/2022 01:31
PFHxS	0.40	0.41	7.50	7.43	ND		07/30/2022 01:31
PFOA	0.37	0.40	7.11	7.03	22		07/30/2022 01:31
6:2 FTS	1.00	0.81	6.78	6.72	ND		07/30/2022 01:31
PFHpS	0.00	0.38	0.00	8.13	ND		07/30/2022 01:31
PFNA	0.15	0.13	7.76	7.80	45		07/30/2022 01:31
PFOSAm	N/A	N/A	10.62	10.55	ND		07/30/2022 01:31
PFOS	0.36	0.41	8.88	8.81	31	J	07/30/2022 01:31
MeFOSA	0.00	0.59	0.00	12.73	ND		07/30/2022 01:31
PFDA	0.19	0.14	8.42	8.34	29		07/30/2022 01:31
EtFOSAm	0.00	0.60	0.00	13.03	ND		07/30/2022 01:31
8:2 FTS	0.90	1.00	8.05	7.95	41		07/30/2022 01:31
9-CI-PF3ON	0.00	0.06	0.00	9.31	ND		07/30/2022 01:31
PFNS	0.00	0.54	0.00	9.52	ND		07/30/2022 01:31
PFUnDA	0.12	0.14	9.09	9.01	12	J	07/30/2022 01:31
NMeFOSAA	0.00	0.87	0.00	8.31	ND		07/30/2022 01:31
NEtFOSAA	0.00	0.61	0.00	8.51	ND		07/30/2022 01:31
PFDS	0.00	0.37	10.23	10.16	ND		07/30/2022 01:31
PFDOA	0.18	0.17	9.76	9.69	18	J	07/30/2022 01:31
MeFOSE	N/A	N/A	0.00	12.41	ND		07/30/2022 01:31
EtFOSE	0.00	0.00	0.00	12.89	ND		07/30/2022 01:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.64	ND		07/30/2022 01:31
PFTTrDA	0.19	0.17	10.43	10.36	ND		07/30/2022 01:31
PFDoS	0.00	0.53	0.00	11.39	ND		07/30/2022 01:31
PFTDA	0.22	0.29	11.08	11.00	ND		07/30/2022 01:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK10-HA01(0-6)
 Lab Sample ID 10616212010
 Lab File ID B220729B_050
 Matrix Soil
 Collected 07/06/2022 13:40
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.46g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.092	0.026	0.026	1	375-22-4		07/30/2022 01:51
PFPeA	ND	0.092	0.026	0.026	1	2706-90-3		07/30/2022 01:51
HFPO-DA	ND	0.092	0.025	0.025	1	13252-13-6		07/30/2022 01:51
PFBS	ND	0.081	0.024	0.024	1	375-73-5		07/30/2022 01:51
PFHxA	ND	0.092	0.025	0.025	1	307-24-4		07/30/2022 01:51
4:2 FTS	ND	0.086	0.021	0.021	1	757124-72-4		07/30/2022 01:51
PFPeS	ND	0.086	0.022	0.022	1	2706-91-4		07/30/2022 01:51
PFHpA	ND	0.092	0.032	0.032	1	375-85-9		07/30/2022 01:51
DONA	ND	0.087	0.033	0.033	1	919005-14-4		07/30/2022 01:51
PFHxS	ND	0.083	0.020	0.020	1	355-46-4		07/30/2022 01:51
PFOA	ND	0.092	0.028	0.028	1	335-67-1		07/30/2022 01:51
6:2 FTS	ND	0.087	0.038	0.038	1	27619-97-2		07/30/2022 01:51
PFHpS	ND	0.087	0.025	0.025	1	375-92-8		07/30/2022 01:51
PFNA	ND	0.092	0.028	0.028	1	375-95-1		07/30/2022 01:51
PFOSAm	ND	0.092	0.027	0.027	1	754-91-6		07/30/2022 01:51
PFOS	0.13	0.085	0.027	0.027	1	1763-23-1		07/30/2022 01:51
MeFOSA	ND	0.092	0.025	0.025	1	31506-32-8		07/30/2022 01:51
PFDA	0.058 J	0.092	0.021	0.021	1	335-76-2		07/30/2022 01:51
EtFOSAm	ND	0.092	0.023	0.023	1	4151-50-2		07/30/2022 01:51
8:2 FTS	ND	0.088	0.040	0.040	1	39108-34-4		07/30/2022 01:51
9-CI-PF3ON	ND	0.085	0.023	0.023	1	756426-58-1		07/30/2022 01:51
PFNS	ND	0.088	0.032	0.032	1	68259-12-1		07/30/2022 01:51
PFUnDA	0.045 J	0.092	0.028	0.028	1	2058-94-8		07/30/2022 01:51
NMeFOSAA	ND	0.092	0.026	0.026	1	2355-31-9		07/30/2022 01:51
NEtFOSAA	ND	0.092	0.037	0.037	1	2991-50-6		07/30/2022 01:51
PFDS	ND	0.088	0.026	0.026	1	335-77-3		07/30/2022 01:51
PFDOA	ND	0.092	0.030	0.030	1	307-55-1		07/30/2022 01:51
MeFOSE	ND	0.092	0.028	0.028	1	24448-09-7		07/30/2022 01:51
EtFOSE	ND	0.092	0.029	0.029	1	1691-99-2		07/30/2022 01:51
11-CI-PF3OUdS	ND	0.086	0.023	0.023	1	763051-92-9		07/30/2022 01:51
PFTTrDA	ND	0.092	0.029	0.029	1	72629-94-8		07/30/2022 01:51
PFDoS	ND	0.089	0.024	0.024	1	79780-39-5		07/30/2022 01:51
PFTDA	ND	0.092	0.031	0.031	1	376-06-7		07/30/2022 01:51

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 PFAS by Isotope Dilution

Client Sample ID PR-TK10-HA01(0-6)
 Lab Sample ID 10616212010
 Lab File ID B220729B_050
 Matrix Soil
 Collected 07/06/2022 13:40
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 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.46g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.92	0.99	108	50-150		07/30/2022 01:51
13C4 PFOA	0.92	1.0	112	50-150		07/30/2022 01:51
13C2 PFDA	0.92	1.1	116	50-150		07/30/2022 01:51
13C4 PFOS	0.88	1.00	114	50-150		07/30/2022 01:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.92	0.74	81	25-150		07/30/2022 01:51
13C5 PFPeA	0.92	0.71	77	25-150		07/30/2022 01:51
13C3 PFBS	0.85	0.75	88	25-150		07/30/2022 01:51
13C2 4:2FTS	0.86	0.77	90	25-150		07/30/2022 01:51
13C5 PFHxA	0.92	0.75	82	25-150		07/30/2022 01:51
13C4 PFHpA	0.92	0.77	84	25-150		07/30/2022 01:51
13C3 PFHxS	0.87	0.81	93	25-150		07/30/2022 01:51
13C2 6:2FTS	0.87	0.77	89	25-150		07/30/2022 01:51
13C8 PFOA	0.92	0.81	89	25-150		07/30/2022 01:51
13C9 PFNA	0.92	0.86	93	25-150		07/30/2022 01:51
13C8 PFOS	0.88	0.79	90	25-150		07/30/2022 01:51
13C2 8:2FTS	0.88	0.94	107	25-150		07/30/2022 01:51
13C6 PFDA	0.92	0.87	95	25-150		07/30/2022 01:51
d3-MeFOSAA	0.92	0.75	82	25-150		07/30/2022 01:51
13C8 PFOSA	0.92	0.59	64	25-150		07/30/2022 01:51
d5-EtFOSAA	0.92	0.84	91	25-150		07/30/2022 01:51
13C7 PFUdA	0.92	0.88	96	25-150		07/30/2022 01:51
13C2 PFDoA	0.92	0.90	98	25-150		07/30/2022 01:51
13C2 PFTeDA	0.92	0.83	91	25-150		07/30/2022 01:51
13C3 HFPO-DA	0.92	0.74	81	25-150		07/30/2022 01:51
d7-N-MeFOSE	0.92	0.012	1	10-150	R	07/30/2022 01:51
d9-N-EtFOSE	0.92	0.020	2	10-150	R	07/30/2022 01:51
d3-N-MeFOSA	0.92	0.0011	0	10-150	R	07/30/2022 01:51
d5-N-EtFOSA	0.92	0.0037	0	10-150	R	07/30/2022 01:51

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 Ending CCal File B220729B_051
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.84	5.71	20		07/30/2022 01:51
13C4 PFOA	N/A	N/A	7.12	6.96	23		07/30/2022 01:51
13C2 PFDA	N/A	N/A	8.43	8.27	18		07/30/2022 01:51
13C4 PFOS	N/A	N/A	8.89	8.75	12		07/30/2022 01:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.26	20		07/30/2022 01:51
13C5 PFPeA	N/A	N/A	5.17	5.13	30		07/30/2022 01:51
13C3 PFBS	N/A	N/A	6.07	5.96	19		07/30/2022 01:51
13C2 4:2FTS	N/A	N/A	5.57	5.48	58		07/30/2022 01:51
13C5 PFHxA	N/A	N/A	5.84	5.73	16		07/30/2022 01:51
13C4 PFHpA	N/A	N/A	6.48	6.32	16		07/30/2022 01:51
13C3 PFHxS	N/A	N/A	7.51	7.52	14		07/30/2022 01:51
13C2 6:2FTS	N/A	N/A	6.80	6.67	13		07/30/2022 01:51
13C8 PFOA	N/A	N/A	7.12	6.94	24		07/30/2022 01:51
13C9 PFNA	N/A	N/A	7.77	7.76	21		07/30/2022 01:51
13C8 PFOS	N/A	N/A	8.90	8.80	12		07/30/2022 01:51
13C2 8:2FTS	N/A	N/A	8.06	7.94	16		07/30/2022 01:51
13C6 PFDA	N/A	N/A	8.44	8.32	16		07/30/2022 01:51
d3-MeFOSAA	N/A	N/A	8.31	8.19	20		07/30/2022 01:51
13C8 PFOSA	N/A	N/A	10.62	10.61	19		07/30/2022 01:51
d5-EtFOSAA	N/A	N/A	8.59	8.49	12		07/30/2022 01:51
13C7 PFUdA	N/A	N/A	9.10	9.00	19		07/30/2022 01:51
13C2 PFDoA	N/A	N/A	9.78	9.67	15		07/30/2022 01:51
13C2 PFTeDA	N/A	N/A	11.09	11.00	12		07/30/2022 01:51
13C3 HFPO-DA	N/A	N/A	6.10	5.97	19		07/30/2022 01:51
d7-N-MeFOSE	N/A	N/A	12.46	12.38	40	R	07/30/2022 01:51
d9-N-EtFOSE	N/A	N/A	12.93	12.96	13	R	07/30/2022 01:51
d3-N-MeFOSA	N/A	N/A	12.68	12.64	27	R	07/30/2022 01:51
d5-N-EtFOSA	N/A	N/A	13.09	13.11	98	R	07/30/2022 01:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK10-HA01(0-6)
 Lab Sample ID 10616212010
 Lab File ID B220729B_050
 Matrix Soil
 Collected 07/06/2022 13:40
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.46g
 Ical ID 220728A02
 CCal File B220729B_040
 Ending CCal File B220729B_051
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.32	4.31	ND		07/30/2022 01:51
PFPeA	N/A	N/A	5.18	5.12	ND		07/30/2022 01:51
HFPO-DA	0.00	0.32	0.00	6.02	ND		07/30/2022 01:51
PFBS	0.00	0.41	0.00	6.05	ND		07/30/2022 01:51
PFHxA	0.09	0.08	5.85	5.88	ND		07/30/2022 01:51
4:2 FTS	0.00	0.83	0.00	5.49	ND		07/30/2022 01:51
PFPeS	0.00	0.46	0.00	6.73	ND		07/30/2022 01:51
PFHpA	0.30	0.32	6.49	6.39	ND		07/30/2022 01:51
DONA	0.00	0.56	0.00	6.62	ND		07/30/2022 01:51
PFHxS	0.43	0.41	7.52	7.43	ND		07/30/2022 01:51
PFOA	0.38	0.40	7.13	7.03	ND		07/30/2022 01:51
6:2 FTS	0.85	0.81	6.80	6.72	ND		07/30/2022 01:51
PFHpS	0.00	0.38	0.00	8.13	ND		07/30/2022 01:51
PFNA	0.14	0.13	7.78	7.80	ND		07/30/2022 01:51
PFOSAm	N/A	N/A	10.63	10.55	ND		07/30/2022 01:51
PFOS	0.43	0.41	8.91	8.81	46		07/30/2022 01:51
MeFOSA	0.00	0.59	0.00	12.73	ND		07/30/2022 01:51
PFDA	0.19	0.14	8.45	8.34	17	J	07/30/2022 01:51
EtFOSAm	0.00	0.60	0.00	13.03	ND		07/30/2022 01:51
8:2 FTS	0.80	1.00	8.07	7.95	ND		07/30/2022 01:51
9-Cl-PF3ON	0.00	0.06	0.00	9.31	ND		07/30/2022 01:51
PFNS	0.00	0.54	0.00	9.52	ND		07/30/2022 01:51
PFUnDA	0.14	0.14	9.11	9.11	92	J	07/30/2022 01:51
NMeFOSAA	0.79	0.87	8.33	8.31	ND		07/30/2022 01:51
NEtFOSAA	0.00	0.61	0.00	8.51	ND		07/30/2022 01:51
PFDS	0.37	0.37	10.26	10.16	ND		07/30/2022 01:51
PFDOA	0.17	0.17	9.78	9.69	ND		07/30/2022 01:51
MeFOSE	N/A	N/A	0.00	12.41	ND		07/30/2022 01:51
EtFOSE	0.00	0.00	0.00	12.89	ND		07/30/2022 01:51
11-Cl-PF3OUdS	0.00	0.02	0.00	10.64	ND		07/30/2022 01:51
PFTTrDA	0.16	0.17	10.45	10.36	ND		07/30/2022 01:51
PFDoS	0.00	0.53	0.00	11.39	ND		07/30/2022 01:51
PFTDA	0.29	0.29	11.09	11.00	ND		07/30/2022 01:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK11-HA01(0-6)
 Lab Sample ID 10616212011
 Lab File ID B220802A_037
 Matrix Soil
 Collected 07/06/2022 13:30
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.24g
 Ical ID 220728A02
 CCal File B220802A_032
 Ending CCal File B220802A_044
 Blank File B220802A_024

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.62	0.096	0.027	0.027	1	375-22-4		08/02/2022 20:30
PFPeA	3.0	0.096	0.027	0.027	1	2706-90-3		08/02/2022 20:30
HFPO-DA	ND	0.096	0.027	0.027	1	13252-13-6		08/02/2022 20:30
PFBS	ND	0.085	0.025	0.025	1	375-73-5		08/02/2022 20:30
PFHxA	1.2	0.096	0.026	0.026	1	307-24-4		08/02/2022 20:30
4:2 FTS	ND	0.089	0.022	0.022	1	757124-72-4		08/02/2022 20:30
PFPeS	0.051 J	0.090	0.023	0.023	1	2706-91-4		08/02/2022 20:30
PFHpA	0.62	0.096	0.033	0.033	1	375-85-9		08/02/2022 20:30
DONA	ND	0.090	0.035	0.035	1	919005-14-4		08/02/2022 20:30
PFHxS	1.1	0.087	0.021	0.021	1	355-46-4		08/02/2022 20:30
PFOA	0.43	0.096	0.030	0.030	1	335-67-1		08/02/2022 20:30
6:2 FTS	3.5	0.091	0.040	0.040	1	27619-97-2		08/02/2022 20:30
PFHpS	0.11	0.091	0.027	0.027	1	375-92-8		08/02/2022 20:30
PFNA	0.28	0.096	0.030	0.030	1	375-95-1		08/02/2022 20:30
PFOSAm	1.4	0.096	0.028	0.028	1	754-91-6		08/02/2022 20:30
PFOS	35 D	0.88	0.28	0.28	10	1763-23-1		08/03/2022 06:51
MeFOSA	ND	0.096	0.026	0.026	1	31506-32-8		08/02/2022 20:30
PFDA	0.87	0.096	0.022	0.022	1	335-76-2		08/02/2022 20:30
EtFOSAm	ND	0.096	0.024	0.024	1	4151-50-2		08/02/2022 20:30
8:2 FTS	6.2	0.092	0.042	0.042	1	39108-34-4		08/02/2022 20:30
9-CI-PF3ON	ND	0.089	0.024	0.024	1	756426-58-1		08/02/2022 20:30
PFNS	0.43	0.092	0.033	0.033	1	68259-12-1		08/02/2022 20:30
PFUnDA	1.2	0.096	0.029	0.029	1	2058-94-8		08/02/2022 20:30
NMeFOSAA	0.14	0.096	0.027	0.027	1	2355-31-9		08/02/2022 20:30
NEtFOSAA	0.073 J	0.096	0.038	0.038	1	2991-50-6		08/02/2022 20:30
PFDS	0.90	0.092	0.027	0.027	1	335-77-3		08/02/2022 20:30
PFDOA	1.3	0.096	0.031	0.031	1	307-55-1		08/02/2022 20:30
MeFOSE	ND	0.096	0.029	0.029	1	24448-09-7		08/02/2022 20:30
EtFOSE	ND	0.096	0.031	0.031	1	1691-99-2		08/02/2022 20:30
11-CI-PF3OUdS	ND	0.090	0.024	0.024	1	763051-92-9		08/02/2022 20:30
PFTTrDA	0.29	0.096	0.030	0.030	1	72629-94-8		08/02/2022 20:30
PFDoS	0.17	0.092	0.025	0.025	1	79780-39-5		08/02/2022 20:30
PFTDA	0.36	0.096	0.033	0.033	1	376-06-7		08/02/2022 20:30

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK11-HA01(0-6)
 Lab Sample ID 10616212011
 Lab File ID B220802A_037
 Matrix Soil
 Collected 07/06/2022 13:30
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.24g
 Ical ID 220728A02
 CCal File B220802A_032
 Ending CCal File B220802A_044
 Blank File B220802A_024

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.96	0.86	90	50-150		08/02/2022 20:30
13C4 PFOA	0.96	0.97	101	50-150		08/02/2022 20:30
13C2 PFDA	0.96	0.87	91	50-150		08/02/2022 20:30
13C4 PFOS	0.91	0.67	74	50-150		08/02/2022 20:30

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.96	0.78	82	25-150		08/02/2022 20:30
13C5 PFPeA	0.96	0.72	75	25-150		08/02/2022 20:30
13C3 PFBS	0.89	0.72	81	25-150		08/02/2022 20:30
13C2 4:2FTS	0.89	0.73	82	25-150		08/02/2022 20:30
13C5 PFHxA	0.96	0.74	77	25-150		08/02/2022 20:30
13C4 PFHpA	0.96	0.83	87	25-150		08/02/2022 20:30
13C3 PFHxS	0.90	0.72	80	25-150		08/02/2022 20:30
13C2 6:2FTS	0.91	0.63	69	25-150		08/02/2022 20:30
13C8 PFOA	0.96	0.89	93	25-150		08/02/2022 20:30
13C9 PFNA	0.96	0.74	78	25-150		08/02/2022 20:30
13C8 PFOS	0.91	0.92	101	25-150	D	08/03/2022 06:51
13C2 8:2FTS	0.91	0.72	79	25-150		08/02/2022 20:30
13C6 PFDA	0.96	0.77	81	25-150		08/02/2022 20:30
d3-MeFOSAA	0.96	0.78	82	25-150		08/02/2022 20:30
13C8 PFOSA	0.96	0.70	73	25-150		08/02/2022 20:30
d5-EtFOSAA	0.96	0.80	84	25-150		08/02/2022 20:30
13C7 PFUdA	0.96	0.97	102	25-150		08/02/2022 20:30
13C2 PFDoA	0.96	0.97	101	25-150		08/02/2022 20:30
13C2 PFTeDA	0.96	0.72	76	25-150		08/02/2022 20:30
13C3 HFPO-DA	0.96	0.78	81	25-150		08/02/2022 20:30
d7-N-MeFOSE	0.96	0.52	54	10-150		08/02/2022 20:30
d9-N-EtFOSE	0.96	0.38	40	10-150		08/02/2022 20:30
d3-N-MeFOSA	0.96	0.076	8	10-150	R	08/02/2022 20:30
d5-N-EtFOSA	0.96	0.059	6	10-150	R	08/02/2022 20:30

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK11-HA01(0-6)
 Lab Sample ID 10616212011
 Lab File ID B220802A_037
 Matrix Soil
 Collected 07/06/2022 13:30
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.24g
 Ical ID 220728A02
 CCal File B220802A_032
 Ending CCal File B220802A_044
 Blank File B220802A_024

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.71	18		08/02/2022 20:30
13C4 PFOA	N/A	N/A	7.07	6.96	17		08/02/2022 20:30
13C2 PFDA	N/A	N/A	8.38	8.27	17		08/02/2022 20:30
13C4 PFOS	N/A	N/A	8.86	8.75	14		08/02/2022 20:30

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.38	25		08/02/2022 20:30
13C5 PFPeA	N/A	N/A	5.14	5.13	20		08/02/2022 20:30
13C3 PFBS	N/A	N/A	6.04	5.96	14		08/02/2022 20:30
13C2 4:2FTS	N/A	N/A	5.53	5.48	44		08/02/2022 20:30
13C5 PFHxA	N/A	N/A	5.80	5.73	15		08/02/2022 20:30
13C4 PFHpA	N/A	N/A	6.44	6.32	15		08/02/2022 20:30
13C3 PFHxS	N/A	N/A	7.47	7.47	17		08/02/2022 20:30
13C2 6:2FTS	N/A	N/A	6.74	6.73	98		08/02/2022 20:30
13C8 PFOA	N/A	N/A	7.07	6.94	19		08/02/2022 20:30
13C9 PFNA	N/A	N/A	7.72	7.61	15		08/02/2022 20:30
13C8 PFOS	N/A	N/A	8.87	8.80	99	D	08/03/2022 06:51
13C2 8:2FTS	N/A	N/A	8.00	7.94	94		08/02/2022 20:30
13C6 PFDA	N/A	N/A	8.38	8.32	15		08/02/2022 20:30
d3-MeFOSAA	N/A	N/A	8.24	8.19	19		08/02/2022 20:30
13C8 PFOSA	N/A	N/A	10.56	10.61	11		08/02/2022 20:30
d5-EtFOSAA	N/A	N/A	8.54	8.49	18		08/02/2022 20:30
13C7 PFUdA	N/A	N/A	9.06	9.00	16		08/02/2022 20:30
13C2 PFDoA	N/A	N/A	9.73	9.67	12		08/02/2022 20:30
13C2 PFTeDA	N/A	N/A	11.03	11.00	13		08/02/2022 20:30
13C3 HFPO-DA	N/A	N/A	6.06	5.97	21		08/02/2022 20:30
d7-N-MeFOSE	N/A	N/A	12.40	12.38	56		08/02/2022 20:30
d9-N-EtFOSE	N/A	N/A	12.86	12.85	29		08/02/2022 20:30
d3-N-MeFOSA	N/A	N/A	12.61	12.64	47	R	08/02/2022 20:30
d5-N-EtFOSA	N/A	N/A	13.02	13.01	38	R	08/02/2022 20:30

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK11-HA01(0-6)
 Lab Sample ID 10616212011
 Lab File ID B220802A_037
 Matrix Soil
 Collected 07/06/2022 13:30
 Received 07/08/2022 18:45
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.24g
 Ical ID 220728A02
 CCal File B220802A_032
 Ending CCal File B220802A_044
 Blank File B220802A_024

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	16		08/02/2022 20:30
PFPeA	N/A	N/A	5.15	5.12	91		08/02/2022 20:30
HFPO-DA	1.20	0.25	6.07	6.02	ND		08/02/2022 20:30
PFBS	0.48	0.43	6.05	5.99	ND		08/02/2022 20:30
PFHxA	0.08	0.08	5.81	5.75	32		08/02/2022 20:30
4:2 FTS	0.00	0.85	0.00	5.49	ND		08/02/2022 20:30
PFPeS	0.41	0.40	6.78	6.73	23	J	08/02/2022 20:30
PFHpA	0.30	0.28	6.44	6.39	21		08/02/2022 20:30
DONA	0.00	0.60	0.00	6.62	ND		08/02/2022 20:30
PFHxS	0.37	0.38	7.48	7.43	12		08/02/2022 20:30
PFOA	0.41	0.42	7.08	7.03	25		08/02/2022 20:30
6:2 FTS	0.84	0.89	6.75	6.72	10		08/02/2022 20:30
PFHpS	0.43	0.33	8.18	8.13	21		08/02/2022 20:30
PFNA	0.14	0.13	7.73	7.67	46		08/02/2022 20:30
PFOSAm	N/A	N/A	10.57	10.55	40		08/02/2022 20:30
PFOS	0.44	0.38	8.88	8.81	10	D	08/03/2022 06:51
MeFOSA	0.00	0.57	0.00	12.61	ND		08/02/2022 20:30
PFDA	0.18	0.18	8.39	8.34	64		08/02/2022 20:30
EtFOSAm	0.00	0.54	0.00	13.03	ND		08/02/2022 20:30
8:2 FTS	0.92	0.85	8.01	7.95	18		08/02/2022 20:30
9-CI-PF3ON	0.00	0.06	0.00	9.31	ND		08/02/2022 20:30
PFNS	0.52	0.54	9.55	9.52	29		08/02/2022 20:30
PFUnDA	0.13	0.11	9.06	9.01	79		08/02/2022 20:30
NMeFOSAA	0.78	0.86	8.25	8.19	13		08/02/2022 20:30
NEtFOSAA	0.56	0.60	8.55	8.51	20	J	08/02/2022 20:30
PFDS	0.34	0.34	10.21	10.16	42		08/02/2022 20:30
PFDOA	0.16	0.19	9.73	9.69	74		08/02/2022 20:30
MeFOSE	N/A	N/A	0.00	12.41	ND		08/02/2022 20:30
EtFOSE	0.00	0.00	12.90	12.89	ND		08/02/2022 20:30
11-CI-PF3OUdS	0.00	0.02	0.00	10.64	ND		08/02/2022 20:30
PFTTrDA	0.16	0.17	10.40	10.36	21		08/02/2022 20:30
PFDoS	0.57	0.54	11.43	11.39	26		08/02/2022 20:30
PFTDA	0.25	0.28	11.04	11.00	37		08/02/2022 20:30

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK12-HA01(0-6)
 Lab Sample ID 10616212012
 Lab File ID B220805B_005
 Matrix Soil
 Collected 07/06/2022 13:20
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.21g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.070 J	0.096	0.027	0.027	1	375-22-4		08/05/2022 22:31
PFPeA	0.31	0.096	0.027	0.027	1	2706-90-3		08/05/2022 22:31
HFPO-DA	ND	0.096	0.027	0.027	1	13252-13-6		08/05/2022 22:31
PFBS	ND	0.085	0.025	0.025	1	375-73-5		08/05/2022 22:31
PFHxA	0.19	0.096	0.026	0.026	1	307-24-4		08/05/2022 22:31
4:2 FTS	ND	0.090	0.022	0.022	1	757124-72-4		08/05/2022 22:31
PFPeS	ND	0.090	0.023	0.023	1	2706-91-4		08/05/2022 22:31
PFHpA	0.13	0.096	0.033	0.033	1	375-85-9		08/05/2022 22:31
DONA	ND	0.091	0.035	0.035	1	919005-14-4		08/05/2022 22:31
PFHxS	ND	0.087	0.021	0.021	1	355-46-4		08/05/2022 22:31
PFOA	0.13	0.096	0.030	0.030	1	335-67-1		08/05/2022 22:31
6:2 FTS	ND	0.091	0.040	0.040	1	27619-97-2		08/05/2022 22:31
PFHpS	ND	0.091	0.027	0.027	1	375-92-8		08/05/2022 22:31
PFNA	ND	0.096	0.030	0.030	1	375-95-1		08/05/2022 22:31
PFOSAm	ND	0.096	0.028	0.028	1	754-91-6		08/05/2022 22:31
PFOS	ND	0.089	0.028	0.028	1	1763-23-1		08/05/2022 22:31
MeFOSA	ND	0.096	0.026	0.026	1	31506-32-8		08/05/2022 22:31
PFDA	ND	0.096	0.022	0.022	1	335-76-2		08/05/2022 22:31
EtFOSAm	ND	0.096	0.025	0.025	1	4151-50-2		08/05/2022 22:31
8:2 FTS	ND	0.092	0.042	0.042	1	39108-34-4		08/05/2022 22:31
9-CI-PF3ON	ND	0.089	0.024	0.024	1	756426-58-1		08/05/2022 22:31
PFNS	ND	0.092	0.033	0.033	1	68259-12-1		08/05/2022 22:31
PFUnDA	ND	0.096	0.029	0.029	1	2058-94-8		08/05/2022 22:31
NMeFOSAA	ND	0.096	0.027	0.027	1	2355-31-9		08/05/2022 22:31
NEtFOSAA	ND	0.096	0.039	0.039	1	2991-50-6		08/05/2022 22:31
PFDS	ND	0.093	0.027	0.027	1	335-77-3		08/05/2022 22:31
PFDOA	ND	0.096	0.032	0.032	1	307-55-1		08/05/2022 22:31
MeFOSE	ND	0.096	0.029	0.029	1	24448-09-7		08/05/2022 22:31
EtFOSE	ND	0.096	0.031	0.031	1	1691-99-2		08/05/2022 22:31
11-CI-PF3OUdS	ND	0.090	0.024	0.024	1	763051-92-9		08/05/2022 22:31
PFTTrDA	0.47 I	0.096	0.031	0.031	1	72629-94-8		08/05/2022 22:31
PFDoS	ND	0.093	0.025	0.025	1	79780-39-5		08/05/2022 22:31
PFTDA	ND	0.096	0.033	0.033	1	376-06-7		08/05/2022 22:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK12-HA01(0-6)
 Lab Sample ID 10616212012
 Lab File ID B220805B_005
 Matrix Soil
 Collected 07/06/2022 13:20
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.21g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.96	1.2	122	50-150		08/05/2022 22:31
13C4 PFOA	0.96	1.2	123	50-150		08/05/2022 22:31
13C2 PFDA	0.96	1.1	118	50-150		08/05/2022 22:31
13C4 PFOS	0.92	1.2	129	50-150		08/05/2022 22:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.96	0.83	86	50-150		08/05/2022 22:31
13C5 PFPeA	0.96	0.86	90	50-150		08/05/2022 22:31
13C3 PFBS	0.89	0.70	78	50-150		08/05/2022 22:31
13C2 4:2FTS	0.90	0.81	90	50-150		08/05/2022 22:31
13C5 PFHxA	0.96	0.85	89	50-150		08/05/2022 22:31
13C4 PFHpA	0.96	0.86	90	50-150		08/05/2022 22:31
13C3 PFHxS	0.91	0.78	86	50-150		08/05/2022 22:31
13C2 6:2FTS	0.91	0.89	98	50-150		08/05/2022 22:31
13C8 PFOA	0.96	0.83	86	50-150		08/05/2022 22:31
13C9 PFNA	0.96	1.1	111	50-150		08/05/2022 22:31
13C8 PFOS	0.92	0.91	100	50-150		08/05/2022 22:31
13C2 8:2FTS	0.92	1.1	116	50-150		08/05/2022 22:31
13C6 PFDA	0.96	0.96	100	50-150		08/05/2022 22:31
d3-MeFOSAA	0.96	0.89	93	50-150		08/05/2022 22:31
13C8 PFOSA	0.96	0.50	53	50-150		08/05/2022 22:31
d5-EtFOSAA	0.96	1.0	106	50-150		08/05/2022 22:31
13C7 PFUdA	0.96	0.95	99	50-150		08/05/2022 22:31
13C2 PFDaA	0.96	0.88	92	50-150		08/05/2022 22:31
13C2 PFTeDA	0.96	0.90	93	50-150		08/05/2022 22:31
13C3 HFPO-DA	0.96	0.88	91	50-150		08/05/2022 22:31
d7-N-MeFOSE	0.96	0.029	3	10-150	R	08/05/2022 22:31
d9-N-EtFOSE	0.96	0.042	4	10-150	R	08/05/2022 22:31
d3-N-MeFOSA	0.96	0.0063	1	10-150	R	08/05/2022 22:31
d5-N-EtFOSA	0.96	0.0056	1	10-150	R	08/05/2022 22:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK12-HA01(0-6)
 Lab Sample ID 10616212012
 Lab File ID B220805B_005
 Matrix Soil
 Collected 07/06/2022 13:20
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.21g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.80	24		08/05/2022 22:31
13C4 PFOA	N/A	N/A	7.07	7.07	23		08/05/2022 22:31
13C2 PFDA	N/A	N/A	8.40	8.39	16		08/05/2022 22:31
13C4 PFOS	N/A	N/A	8.89	8.88	17		08/05/2022 22:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	24		08/05/2022 22:31
13C5 PFPeA	N/A	N/A	5.14	5.15	27		08/05/2022 22:31
13C3 PFBS	N/A	N/A	6.04	6.05	19		08/05/2022 22:31
13C2 4:2FTS	N/A	N/A	5.53	5.54	57		08/05/2022 22:31
13C5 PFHxA	N/A	N/A	5.80	5.80	17		08/05/2022 22:31
13C4 PFHpA	N/A	N/A	6.43	6.43	19		08/05/2022 22:31
13C3 PFHxS	N/A	N/A	7.48	7.49	18		08/05/2022 22:31
13C2 6:2FTS	N/A	N/A	6.73	6.74	11		08/05/2022 22:31
13C8 PFOA	N/A	N/A	7.07	7.07	29		08/05/2022 22:31
13C9 PFNA	N/A	N/A	7.72	7.72	24		08/05/2022 22:31
13C8 PFOS	N/A	N/A	8.89	8.88	18		08/05/2022 22:31
13C2 8:2FTS	N/A	N/A	8.01	8.01	20		08/05/2022 22:31
13C6 PFDA	N/A	N/A	8.40	8.39	17		08/05/2022 22:31
d3-MeFOSAA	N/A	N/A	8.26	8.25	13		08/05/2022 22:31
13C8 PFOSA	N/A	N/A	10.64	10.61	13		08/05/2022 22:31
d5-EtFOSAA	N/A	N/A	8.55	8.54	14		08/05/2022 22:31
13C7 PFUdA	N/A	N/A	9.08	9.07	23		08/05/2022 22:31
13C2 PFDoA	N/A	N/A	9.76	9.74	10		08/05/2022 22:31
13C2 PFTeDA	N/A	N/A	11.07	11.07	16		08/05/2022 22:31
13C3 HFPO-DA	N/A	N/A	6.05	6.06	19		08/05/2022 22:31
d7-N-MeFOSE	N/A	N/A	12.46	12.45	30	R	08/05/2022 22:31
d9-N-EtFOSE	N/A	N/A	12.92	12.92	11	R	08/05/2022 22:31
d3-N-MeFOSA	N/A	N/A	12.67	12.66	10	R	08/05/2022 22:31
d5-N-EtFOSA	N/A	N/A	13.08	13.08	72	R	08/05/2022 22:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK12-HA01(0-6)
 Lab Sample ID 10616212012
 Lab File ID B220805B_005
 Matrix Soil
 Collected 07/06/2022 13:20
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.21g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	82	J	08/05/2022 22:31
PFPeA	N/A	N/A	5.15	5.15	29		08/05/2022 22:31
HFPO-DA	0.00	0.30	0.00	6.07	ND		08/05/2022 22:31
PFBS	0.23	0.48	6.03	6.06	ND		08/05/2022 22:31
PFHxA	0.08	0.08	5.81	5.81	17		08/05/2022 22:31
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/05/2022 22:31
PFPeS	0.00	0.43	0.00	6.79	ND		08/05/2022 22:31
PFHpA	0.37	0.30	6.43	6.44	12		08/05/2022 22:31
DONA	0.00	0.59	0.00	6.67	ND		08/05/2022 22:31
PFHxS	0.35	0.40	7.49	7.49	ND		08/05/2022 22:31
PFOA	0.48	0.40	7.07	7.08	11		08/05/2022 22:31
6:2 FTS	0.62	0.87	6.74	6.74	ND		08/05/2022 22:31
PFHpS	0.00	0.42	0.00	8.20	ND		08/05/2022 22:31
PFNA	0.11	0.13	7.73	7.73	ND		08/05/2022 22:31
PFOSAm	N/A	N/A	0.00	10.61	ND		08/05/2022 22:31
PFOS	0.36	0.42	8.90	8.90	ND		08/05/2022 22:31
MeFOSA	0.00	0.59	0.00	12.69	ND		08/05/2022 22:31
PFDA	0.23	0.18	8.41	8.40	ND		08/05/2022 22:31
EtFOSAm	0.00	0.63	0.00	13.10	ND		08/05/2022 22:31
8:2 FTS	0.68	0.78	8.02	8.02	ND		08/05/2022 22:31
9-CI-PF3ON	0.00	0.07	0.00	9.39	ND		08/05/2022 22:31
PFNS	0.00	0.49	0.00	9.58	ND		08/05/2022 22:31
PFUnDA	0.52	0.13	9.09	9.08	ND		08/05/2022 22:31
NMeFOSAA	0.00	0.90	0.00	8.26	ND		08/05/2022 22:31
NEtFOSAA	0.00	0.58	0.00	8.55	ND		08/05/2022 22:31
PFDS	0.00	0.37	0.00	10.24	ND		08/05/2022 22:31
PFDOA	2.70	0.17	9.77	9.75	ND		08/05/2022 22:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 22:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 22:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 22:31
PFTTrDA	0.44	0.19	10.24	10.42	37	I	08/05/2022 22:31
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 22:31
PFTDA	0.00	0.25	0.00	11.07	ND		08/05/2022 22:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK13-HA01(0-6)
 Lab Sample ID 10616212013
 Lab File ID B220804B_009
 Matrix Soil
 Collected 07/05/2022 13:20
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.23	0.096	0.027	0.027	1	375-22-4		08/05/2022 03:31
PFPeA	1.1	0.096	0.027	0.027	1	2706-90-3		08/05/2022 03:31
HFPO-DA	ND	0.096	0.027	0.027	1	13252-13-6		08/05/2022 03:31
PFBS	0.065 J	0.085	0.025	0.025	1	375-73-5		08/05/2022 03:31
PFHxA	0.43	0.096	0.026	0.026	1	307-24-4		08/05/2022 03:31
4:2 FTS	ND	0.089	0.022	0.022	1	757124-72-4		08/05/2022 03:31
PFPeS	0.094	0.090	0.023	0.023	1	2706-91-4		08/05/2022 03:31
PFHpA	0.17	0.096	0.033	0.033	1	375-85-9		08/05/2022 03:31
DONA	ND	0.090	0.035	0.035	1	919005-14-4		08/05/2022 03:31
PFHxS	1.0	0.087	0.021	0.021	1	355-46-4		08/05/2022 03:31
PFOA	0.15	0.096	0.030	0.030	1	335-67-1		08/05/2022 03:31
6:2 FTS	0.23	0.091	0.040	0.040	1	27619-97-2		08/05/2022 03:31
PFHpS	0.051 J	0.091	0.027	0.027	1	375-92-8		08/05/2022 03:31
PFNA	0.11	0.096	0.030	0.030	1	375-95-1		08/05/2022 03:31
PFOSAm	0.034 J	0.096	0.028	0.028	1	754-91-6		08/05/2022 03:31
PFOS	6.7	0.089	0.028	0.028	1	1763-23-1		08/05/2022 03:31
MeFOSA	ND	0.096	0.026	0.026	1	31506-32-8		08/05/2022 03:31
PFDA	0.11	0.096	0.022	0.022	1	335-76-2		08/05/2022 03:31
EtFOSAm	ND	0.096	0.025	0.025	1	4151-50-2		08/05/2022 03:31
8:2 FTS	0.054 J	0.092	0.042	0.042	1	39108-34-4		08/05/2022 03:31
9-CI-PF3ON	ND	0.089	0.024	0.024	1	756426-58-1		08/05/2022 03:31
PFNS	ND	0.092	0.033	0.033	1	68259-12-1		08/05/2022 03:31
PFUnDA	ND	0.096	0.029	0.029	1	2058-94-8		08/05/2022 03:31
NMeFOSAA	ND	0.096	0.027	0.027	1	2355-31-9		08/05/2022 03:31
NEtFOSAA	ND	0.096	0.038	0.038	1	2991-50-6		08/05/2022 03:31
PFDS	ND	0.092	0.027	0.027	1	335-77-3		08/05/2022 03:31
PFDOA	ND	0.096	0.031	0.031	1	307-55-1		08/05/2022 03:31
MeFOSE	ND	0.096	0.029	0.029	1	24448-09-7		08/05/2022 03:31
EtFOSE	ND	0.096	0.031	0.031	1	1691-99-2		08/05/2022 03:31
11-CI-PF3OUdS	ND	0.090	0.024	0.024	1	763051-92-9		08/05/2022 03:31
PFTTrDA	ND	0.096	0.031	0.031	1	72629-94-8		08/05/2022 03:31
PFDoS	ND	0.093	0.025	0.025	1	79780-39-5		08/05/2022 03:31
PFTDA	ND	0.096	0.033	0.033	1	376-06-7		08/05/2022 03:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK13-HA01(0-6)
 Lab Sample ID 10616212013
 Lab File ID B220804B_009
 Matrix Soil
 Collected 07/05/2022 13:20
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.96	1.1	111	50-150		08/05/2022 03:31
13C4 PFOA	0.96	1.3	131	50-150		08/05/2022 03:31
13C2 PFDA	0.96	1.3	136	50-150		08/05/2022 03:31
13C4 PFOS	0.92	0.97	106	50-150		08/05/2022 03:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.96	0.81	84	25-150		08/05/2022 03:31
13C5 PFPeA	0.96	0.84	88	25-150		08/05/2022 03:31
13C3 PFBS	0.89	0.77	87	25-150		08/05/2022 03:31
13C2 4:2FTS	0.89	0.77	86	25-150		08/05/2022 03:31
13C5 PFHxA	0.96	0.84	88	25-150		08/05/2022 03:31
13C4 PFHpA	0.96	0.76	80	25-150		08/05/2022 03:31
13C3 PFHxS	0.91	0.73	80	25-150		08/05/2022 03:31
13C2 6:2FTS	0.91	0.80	88	25-150		08/05/2022 03:31
13C8 PFOA	0.96	0.89	93	25-150		08/05/2022 03:31
13C9 PFNA	0.96	0.88	92	25-150		08/05/2022 03:31
13C8 PFOS	0.92	0.75	82	25-150		08/05/2022 03:31
13C2 8:2FTS	0.92	0.93	101	25-150		08/05/2022 03:31
13C6 PFDA	0.96	0.76	80	25-150		08/05/2022 03:31
d3-MeFOSAA	0.96	0.93	97	25-150		08/05/2022 03:31
13C8 PFOSA	0.96	0.65	68	25-150		08/05/2022 03:31
d5-EtFOSAA	0.96	0.76	80	25-150		08/05/2022 03:31
13C7 PFUdA	0.96	0.89	93	25-150		08/05/2022 03:31
13C2 PFDoA	0.96	0.87	91	25-150		08/05/2022 03:31
13C2 PFTeDA	0.96	0.87	90	25-150		08/05/2022 03:31
13C3 HFPO-DA	0.96	0.84	88	25-150		08/05/2022 03:31
d7-N-MeFOSE	0.96	0.091	10	10-150		08/05/2022 03:31
d9-N-EtFOSE	0.96	0.071	7	10-150	R	08/05/2022 03:31
d3-N-MeFOSA	0.96	0.011	1	10-150	R	08/05/2022 03:31
d5-N-EtFOSA	0.96	0.0084	1	10-150	R	08/05/2022 03:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK13-HA01(0-6)
 Lab Sample ID 10616212013
 Lab File ID B220804B_009
 Matrix Soil
 Collected 07/05/2022 13:20
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.80	19		08/05/2022 03:31
13C4 PFOA	N/A	N/A	7.05	7.07	19		08/05/2022 03:31
13C2 PFDA	N/A	N/A	8.37	8.39	14		08/05/2022 03:31
13C4 PFOS	N/A	N/A	8.86	8.88	12		08/05/2022 03:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	25		08/05/2022 03:31
13C5 PFPeA	N/A	N/A	5.14	5.15	23		08/05/2022 03:31
13C3 PFBS	N/A	N/A	6.04	6.05	13		08/05/2022 03:31
13C2 4:2FTS	N/A	N/A	5.53	5.54	61		08/05/2022 03:31
13C5 PFHxA	N/A	N/A	5.79	5.80	17		08/05/2022 03:31
13C4 PFHpA	N/A	N/A	6.41	6.43	13		08/05/2022 03:31
13C3 PFHxS	N/A	N/A	7.47	7.49	18		08/05/2022 03:31
13C2 6:2FTS	N/A	N/A	6.72	6.74	89		08/05/2022 03:31
13C8 PFOA	N/A	N/A	7.05	7.07	19		08/05/2022 03:31
13C9 PFNA	N/A	N/A	7.70	7.72	19		08/05/2022 03:31
13C8 PFOS	N/A	N/A	8.87	8.88	11		08/05/2022 03:31
13C2 8:2FTS	N/A	N/A	7.99	8.01	19		08/05/2022 03:31
13C6 PFDA	N/A	N/A	8.37	8.39	16		08/05/2022 03:31
d3-MeFOSAA	N/A	N/A	8.23	8.25	14		08/05/2022 03:31
13C8 PFOSA	N/A	N/A	10.60	10.61	12		08/05/2022 03:31
d5-EtFOSAA	N/A	N/A	8.53	8.54	12		08/05/2022 03:31
13C7 PFUdA	N/A	N/A	9.04	9.07	30		08/05/2022 03:31
13C2 PFDoA	N/A	N/A	9.71	9.74	12		08/05/2022 03:31
13C2 PFTeDA	N/A	N/A	11.04	11.07	11		08/05/2022 03:31
13C3 HFPO-DA	N/A	N/A	6.05	6.06	17		08/05/2022 03:31
d7-N-MeFOSE	N/A	N/A	12.45	12.45	41		08/05/2022 03:31
d9-N-EtFOSE	N/A	N/A	12.92	12.92	17	R	08/05/2022 03:31
d3-N-MeFOSA	N/A	N/A	12.66	12.66	13	R	08/05/2022 03:31
d5-N-EtFOSA	N/A	N/A	13.07	13.08	13	R	08/05/2022 03:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK13-HA01(0-6)
 Lab Sample ID 10616212013
 Lab File ID B220804B_009
 Matrix Soil
 Collected 07/05/2022 13:20
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	12		08/05/2022 03:31
PFPeA	N/A	N/A	5.15	5.15	60		08/05/2022 03:31
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/05/2022 03:31
PFBS	0.45	0.43	6.04	6.06	30	J	08/05/2022 03:31
PFHxA	0.08	0.07	5.80	5.81	31		08/05/2022 03:31
4:2 FTS	0.00	0.85	0.00	5.54	ND		08/05/2022 03:31
PFPeS	0.43	0.46	6.77	6.79	37		08/05/2022 03:31
PFHpA	0.28	0.29	6.42	6.44	22		08/05/2022 03:31
DONA	0.00	0.57	0.00	6.67	ND		08/05/2022 03:31
PFHxS	0.38	0.40	7.48	7.49	11		08/05/2022 03:31
PFOA	0.42	0.40	7.05	7.08	18		08/05/2022 03:31
6:2 FTS	0.85	0.97	6.72	6.74	49		08/05/2022 03:31
PFHpS	0.48	0.36	8.19	8.20	19	J	08/05/2022 03:31
PFNA	0.13	0.12	7.71	7.73	30		08/05/2022 03:31
PFOSAm	N/A	N/A	10.61	10.61	16	J	08/05/2022 03:31
PFOS	0.40	0.44	8.88	8.90	48		08/05/2022 03:31
MeFOSA	0.00	0.51	0.00	12.69	ND		08/05/2022 03:31
PFDA	0.20	0.19	8.38	8.40	22		08/05/2022 03:31
EtFOSAm	0.00	0.59	0.00	13.10	ND		08/05/2022 03:31
8:2 FTS	1.10	0.88	8.00	8.02	15	J	08/05/2022 03:31
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/05/2022 03:31
PFNS	0.46	0.47	9.54	9.58	ND		08/05/2022 03:31
PFUnDA	0.16	0.15	9.05	9.08	ND		08/05/2022 03:31
NMeFOSAA	0.63	0.90	8.24	8.26	ND		08/05/2022 03:31
NEtFOSAA	0.00	0.71	0.00	8.55	ND		08/05/2022 03:31
PFDS	0.39	0.32	10.21	10.24	ND		08/05/2022 03:31
PFDOA	0.23	0.20	9.72	9.75	ND		08/05/2022 03:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 03:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 03:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 03:31
PFTTrDA	0.22	0.16	10.39	10.42	ND		08/05/2022 03:31
PFDoS	0.59	0.48	11.46	11.48	ND		08/05/2022 03:31
PFTDA	0.15	0.30	11.04	11.07	ND		08/05/2022 03:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK14-HA01(0-6)
 Lab Sample ID 10616212014
 Lab File ID B220805B_006
 Matrix Soil
 Collected 07/05/2022 13:40
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.42g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.028 J	0.092	0.026	0.026	1	375-22-4		08/05/2022 22:51
PFPeA	0.11	0.092	0.026	0.026	1	2706-90-3		08/05/2022 22:51
HFPO-DA	ND	0.092	0.026	0.026	1	13252-13-6		08/05/2022 22:51
PFBS	ND	0.082	0.024	0.024	1	375-73-5		08/05/2022 22:51
PFHxA	0.064 J	0.092	0.025	0.025	1	307-24-4		08/05/2022 22:51
4:2 FTS	ND	0.086	0.021	0.021	1	757124-72-4		08/05/2022 22:51
PFPeS	ND	0.087	0.022	0.022	1	2706-91-4		08/05/2022 22:51
PFHpA	0.046 J	0.092	0.032	0.032	1	375-85-9		08/05/2022 22:51
DONA	ND	0.087	0.033	0.033	1	919005-14-4		08/05/2022 22:51
PFHxS	0.064 J	0.084	0.020	0.020	1	355-46-4		08/05/2022 22:51
PFOA	0.089 J	0.092	0.029	0.029	1	335-67-1		08/05/2022 22:51
6:2 FTS	ND	0.088	0.038	0.038	1	27619-97-2		08/05/2022 22:51
PFHpS	ND	0.088	0.026	0.026	1	375-92-8		08/05/2022 22:51
PFNA	0.065 J	0.092	0.029	0.029	1	375-95-1		08/05/2022 22:51
PFOSAm	ND	0.092	0.027	0.027	1	754-91-6		08/05/2022 22:51
PFOS	0.20	0.085	0.027	0.027	1	1763-23-1		08/05/2022 22:51
MeFOSA	ND	0.092	0.025	0.025	1	31506-32-8		08/05/2022 22:51
PFDA	0.027 J	0.092	0.021	0.021	1	335-76-2		08/05/2022 22:51
EtFOSAm	ND	0.092	0.024	0.024	1	4151-50-2		08/05/2022 22:51
8:2 FTS	ND	0.089	0.040	0.040	1	39108-34-4		08/05/2022 22:51
9-CI-PF3ON	ND	0.086	0.023	0.023	1	756426-58-1		08/05/2022 22:51
PFNS	ND	0.089	0.032	0.032	1	68259-12-1		08/05/2022 22:51
PFUnDA	ND	0.092	0.028	0.028	1	2058-94-8		08/05/2022 22:51
NMeFOSAA	ND	0.092	0.026	0.026	1	2355-31-9		08/05/2022 22:51
NEtFOSAA	ND	0.092	0.037	0.037	1	2991-50-6		08/05/2022 22:51
PFDS	ND	0.089	0.026	0.026	1	335-77-3		08/05/2022 22:51
PFDOA	ND	0.092	0.030	0.030	1	307-55-1		08/05/2022 22:51
MeFOSE	ND	0.092	0.028	0.028	1	24448-09-7		08/05/2022 22:51
EtFOSE	ND	0.092	0.030	0.030	1	1691-99-2		08/05/2022 22:51
11-CI-PF3OUdS	ND	0.087	0.023	0.023	1	763051-92-9		08/05/2022 22:51
PFTTrDA	ND	0.092	0.029	0.029	1	72629-94-8		08/05/2022 22:51
PFDoS	ND	0.089	0.024	0.024	1	79780-39-5		08/05/2022 22:51
PFTDA	ND	0.092	0.032	0.032	1	376-06-7		08/05/2022 22:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK14-HA01(0-6)
 Lab Sample ID 10616212014
 Lab File ID B220805B_006
 Matrix Soil
 Collected 07/05/2022 13:40
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.42g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.92	1.2	128	50-150		08/05/2022 22:51
13C4 PFOA	0.92	1.1	117	50-150		08/05/2022 22:51
13C2 PFDA	0.92	1.2	135	50-150		08/05/2022 22:51
13C4 PFOS	0.88	1.1	126	50-150		08/05/2022 22:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.92	0.78	84	25-150		08/05/2022 22:51
13C5 PFPeA	0.92	0.80	86	25-150		08/05/2022 22:51
13C3 PFBS	0.86	0.68	80	25-150		08/05/2022 22:51
13C2 4:2FTS	0.86	0.73	84	25-150		08/05/2022 22:51
13C5 PFHxA	0.92	0.86	93	25-150		08/05/2022 22:51
13C4 PFHpA	0.92	0.81	88	25-150		08/05/2022 22:51
13C3 PFHxS	0.87	0.75	86	25-150		08/05/2022 22:51
13C2 6:2FTS	0.88	0.71	81	25-150		08/05/2022 22:51
13C8 PFOA	0.92	0.77	84	25-150		08/05/2022 22:51
13C9 PFNA	0.92	0.87	94	25-150		08/05/2022 22:51
13C8 PFOS	0.88	0.90	102	25-150		08/05/2022 22:51
13C2 8:2FTS	0.88	0.87	99	25-150		08/05/2022 22:51
13C6 PFDA	0.92	0.99	107	25-150		08/05/2022 22:51
d3-MeFOSAA	0.92	0.89	96	25-150		08/05/2022 22:51
13C8 PFOSA	0.92	0.69	74	25-150		08/05/2022 22:51
d5-EtFOSAA	0.92	0.87	95	25-150		08/05/2022 22:51
13C7 PFUdA	0.92	0.86	93	25-150		08/05/2022 22:51
13C2 PFDoA	0.92	0.90	97	25-150		08/05/2022 22:51
13C2 PFTeDA	0.92	0.71	77	25-150		08/05/2022 22:51
13C3 HFPO-DA	0.92	0.76	83	25-150		08/05/2022 22:51
d7-N-MeFOSE	0.92	0.016	2	10-150	R	08/05/2022 22:51
d9-N-EtFOSE	0.92	0.026	3	10-150	R	08/05/2022 22:51
d3-N-MeFOSA	0.92	0.0047	1	10-150	R	08/05/2022 22:51
d5-N-EtFOSA	0.92	0.0068	1	10-150	R	08/05/2022 22:51

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 Lab File ID B220805B_006
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 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.42g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.80	25		08/05/2022 22:51
13C4 PFOA	N/A	N/A	7.07	7.07	25		08/05/2022 22:51
13C2 PFDA	N/A	N/A	8.40	8.39	21		08/05/2022 22:51
13C4 PFOS	N/A	N/A	8.88	8.88	18		08/05/2022 22:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	24		08/05/2022 22:51
13C5 PFPeA	N/A	N/A	5.14	5.15	28		08/05/2022 22:51
13C3 PFBS	N/A	N/A	6.04	6.05	19		08/05/2022 22:51
13C2 4:2FTS	N/A	N/A	5.54	5.54	68		08/05/2022 22:51
13C5 PFHxA	N/A	N/A	5.80	5.80	21		08/05/2022 22:51
13C4 PFHpA	N/A	N/A	6.43	6.43	23		08/05/2022 22:51
13C3 PFHxS	N/A	N/A	7.48	7.49	19		08/05/2022 22:51
13C2 6:2FTS	N/A	N/A	6.74	6.74	13		08/05/2022 22:51
13C8 PFOA	N/A	N/A	7.07	7.07	21		08/05/2022 22:51
13C9 PFNA	N/A	N/A	7.72	7.72	22		08/05/2022 22:51
13C8 PFOS	N/A	N/A	8.89	8.88	19		08/05/2022 22:51
13C2 8:2FTS	N/A	N/A	8.01	8.01	16		08/05/2022 22:51
13C6 PFDA	N/A	N/A	8.40	8.39	17		08/05/2022 22:51
d3-MeFOSAA	N/A	N/A	8.26	8.25	17		08/05/2022 22:51
13C8 PFOSA	N/A	N/A	10.64	10.61	14		08/05/2022 22:51
d5-EtFOSAA	N/A	N/A	8.55	8.54	15		08/05/2022 22:51
13C7 PFUdA	N/A	N/A	9.08	9.07	21		08/05/2022 22:51
13C2 PFDoA	N/A	N/A	9.75	9.74	11		08/05/2022 22:51
13C2 PFTeDA	N/A	N/A	11.07	11.07	11		08/05/2022 22:51
13C3 HFPO-DA	N/A	N/A	6.06	6.06	16		08/05/2022 22:51
d7-N-MeFOSE	N/A	N/A	12.47	12.45	31	R	08/05/2022 22:51
d9-N-EtFOSE	N/A	N/A	12.93	12.92	10	R	08/05/2022 22:51
d3-N-MeFOSA	N/A	N/A	12.68	12.66	11	R	08/05/2022 22:51
d5-N-EtFOSA	N/A	N/A	13.09	13.08	12	R	08/05/2022 22:51

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 PFAS by Isotope Dilution

Client Sample ID PR-TK14-HA01(0-6)
 Lab Sample ID 10616212014
 Lab File ID B220805B_006
 Matrix Soil
 Collected 07/05/2022 13:40
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.42g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	70	J	08/05/2022 22:51
PFPeA	N/A	N/A	5.15	5.15	28		08/05/2022 22:51
HFPO-DA	0.86	0.30	6.07	6.07	ND		08/05/2022 22:51
PFBS	0.32	0.48	6.04	6.06	ND		08/05/2022 22:51
PFHxA	0.07	0.08	5.81	5.81	14	J	08/05/2022 22:51
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/05/2022 22:51
PFPeS	0.38	0.43	6.78	6.79	ND		08/05/2022 22:51
PFHpA	0.32	0.30	6.44	6.44	17	J	08/05/2022 22:51
DONA	0.00	0.59	0.00	6.67	ND		08/05/2022 22:51
PFHxS	0.41	0.40	7.49	7.49	50	J	08/05/2022 22:51
PFOA	0.43	0.40	7.07	7.08	13	J	08/05/2022 22:51
6:2 FTS	1.20	0.87	6.74	6.74	ND		08/05/2022 22:51
PFHpS	0.00	0.42	0.00	8.20	ND		08/05/2022 22:51
PFNA	0.12	0.13	7.73	7.73	18	J	08/05/2022 22:51
PFOSAm	N/A	N/A	10.65	10.61	ND		08/05/2022 22:51
PFOS	0.37	0.42	8.90	8.90	42		08/05/2022 22:51
MeFOSA	0.00	0.59	0.00	12.69	ND		08/05/2022 22:51
PFDA	0.22	0.18	8.41	8.40	11	J	08/05/2022 22:51
EtFOSAm	0.00	0.63	0.00	13.10	ND		08/05/2022 22:51
8:2 FTS	0.00	0.78	0.00	8.02	ND		08/05/2022 22:51
9-CI-PF3ON	0.00	0.07	0.00	9.39	ND		08/05/2022 22:51
PFNS	0.00	0.49	0.00	9.58	ND		08/05/2022 22:51
PFUnDA	0.17	0.13	9.08	9.08	ND		08/05/2022 22:51
NMeFOSAA	0.00	0.90	0.00	8.26	ND		08/05/2022 22:51
NEtFOSAA	0.00	0.58	0.00	8.55	ND		08/05/2022 22:51
PFDS	0.00	0.37	0.00	10.24	ND		08/05/2022 22:51
PFDOA	0.08	0.17	9.76	9.75	ND		08/05/2022 22:51
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 22:51
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 22:51
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 22:51
PFTTrDA	0.49	0.19	10.23	10.42	ND		08/05/2022 22:51
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 22:51
PFTDA	0.00	0.25	0.00	11.07	ND		08/05/2022 22:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK15-HA01(0-6)
 Lab Sample ID 10616212015
 Lab File ID B220804B_011
 Matrix Soil
 Collected 07/05/2022 13:55
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.29g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.78	0.095	0.027	0.027	1	375-22-4		08/05/2022 04:11
PFPeA	3.8	0.095	0.027	0.027	1	2706-90-3		08/05/2022 04:11
HFPO-DA	ND	0.095	0.026	0.026	1	13252-13-6		08/05/2022 04:11
PFBS	ND	0.084	0.025	0.025	1	375-73-5		08/05/2022 04:11
PFHxA	1.7	0.095	0.026	0.026	1	307-24-4		08/05/2022 04:11
4:2 FTS	ND	0.088	0.022	0.022	1	757124-72-4		08/05/2022 04:11
PFPeS	ND	0.089	0.023	0.023	1	2706-91-4		08/05/2022 04:11
PFHpA	0.58	0.095	0.033	0.033	1	375-85-9		08/05/2022 04:11
DONA	ND	0.089	0.034	0.034	1	919005-14-4		08/05/2022 04:11
PFHxS	0.20	0.086	0.021	0.021	1	355-46-4		08/05/2022 04:11
PFOA	0.87	0.095	0.029	0.029	1	335-67-1		08/05/2022 04:11
6:2 FTS	3.6	0.090	0.039	0.039	1	27619-97-2		08/05/2022 04:11
PFHpS	ND	0.090	0.026	0.026	1	375-92-8		08/05/2022 04:11
PFNA	0.61	0.095	0.029	0.029	1	375-95-1		08/05/2022 04:11
PFOSAm	0.075 J	0.095	0.028	0.028	1	754-91-6		08/05/2022 04:11
PFOS	9.2 D	0.17	0.056	0.056	2	1763-23-1		08/06/2022 00:51
MeFOSA	ND	0.095	0.026	0.026	1	31506-32-8		08/05/2022 04:11
PFDA	1.9	0.095	0.022	0.022	1	335-76-2		08/05/2022 04:11
EtFOSAm	ND	0.095	0.024	0.024	1	4151-50-2		08/05/2022 04:11
8:2 FTS	3.5	0.091	0.041	0.041	1	39108-34-4		08/05/2022 04:11
9-CI-PF3ON	ND	0.088	0.024	0.024	1	756426-58-1		08/05/2022 04:11
PFNS	0.077 J	0.091	0.033	0.033	1	68259-12-1		08/05/2022 04:11
PFUnDA	1.1	0.095	0.029	0.029	1	2058-94-8		08/05/2022 04:11
NMeFOSAA	ND	0.095	0.027	0.027	1	2355-31-9		08/05/2022 04:11
NEtFOSAA	ND	0.095	0.038	0.038	1	2991-50-6		08/05/2022 04:11
PFDS	0.040 J	0.091	0.027	0.027	1	335-77-3		08/05/2022 04:11
PFDOA	0.53	0.095	0.031	0.031	1	307-55-1		08/05/2022 04:11
MeFOSE	ND	0.095	0.029	0.029	1	24448-09-7		08/05/2022 04:11
EtFOSE	ND	0.095	0.030	0.030	1	1691-99-2		08/05/2022 04:11
11-CI-PF3OUdS	ND	0.089	0.024	0.024	1	763051-92-9		08/05/2022 04:11
PFTTrDA	0.096	0.095	0.030	0.030	1	72629-94-8		08/05/2022 04:11
PFDoS	ND	0.091	0.025	0.025	1	79780-39-5		08/05/2022 04:11
PFTDA	0.074 J	0.095	0.032	0.032	1	376-06-7		08/05/2022 04:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK15-HA01(0-6)
 Lab Sample ID 10616212015
 Lab File ID B220804B_011
 Matrix Soil
 Collected 07/05/2022 13:55
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.29g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.95	1.0	110	50-150		08/05/2022 04:11
13C4 PFOA	0.95	1.2	130	50-150		08/05/2022 04:11
13C2 PFDA	0.95	1.2	125	50-150		08/05/2022 04:11
13C4 PFOS	0.90	0.90	100	50-150		08/05/2022 04:11

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.95	0.73	78	25-150		08/05/2022 04:11
13C5 PFPeA	0.95	0.74	78	25-150		08/05/2022 04:11
13C3 PFBS	0.88	0.70	80	25-150		08/05/2022 04:11
13C2 4:2FTS	0.88	0.62	71	25-150		08/05/2022 04:11
13C5 PFHxA	0.95	0.77	81	25-150		08/05/2022 04:11
13C4 PFHpA	0.95	0.70	74	25-150		08/05/2022 04:11
13C3 PFHxS	0.89	0.69	77	25-150		08/05/2022 04:11
13C2 6:2FTS	0.90	0.63	70	25-150		08/05/2022 04:11
13C8 PFOA	0.95	0.69	73	25-150		08/05/2022 04:11
13C9 PFNA	0.95	0.80	85	25-150		08/05/2022 04:11
13C8 PFOS	0.90	0.85	94	25-150	D	08/06/2022 00:51
13C2 8:2FTS	0.91	0.83	92	25-150		08/05/2022 04:11
13C6 PFDA	0.95	0.84	89	25-150		08/05/2022 04:11
d3-MeFOSAA	0.95	0.79	84	25-150		08/05/2022 04:11
13C8 PFOSA	0.95	0.43	46	25-150		08/05/2022 04:11
d5-EtFOSAA	0.95	0.70	75	25-150		08/05/2022 04:11
13C7 PFUdA	0.95	0.87	92	25-150		08/05/2022 04:11
13C2 PFDoA	0.95	0.77	82	25-150		08/05/2022 04:11
13C2 PFTeDA	0.95	0.89	94	25-150		08/05/2022 04:11
13C3 HFPO-DA	0.95	0.75	80	25-150		08/05/2022 04:11
d7-N-MeFOSE	0.95	0.13	14	10-150		08/05/2022 04:11
d9-N-EtFOSE	0.95	0.057	6	10-150	R	08/05/2022 04:11
d3-N-MeFOSA	0.95	0.012	1	10-150	R	08/05/2022 04:11
d5-N-EtFOSA	0.95	0.0068	1	10-150	R	08/05/2022 04:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK15-HA01(0-6)
 Lab Sample ID 10616212015
 Lab File ID B220804B_011
 Matrix Soil
 Collected 07/05/2022 13:55
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.29g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.80	18		08/05/2022 04:11
13C4 PFOA	N/A	N/A	7.05	7.07	25		08/05/2022 04:11
13C2 PFDA	N/A	N/A	8.38	8.39	25		08/05/2022 04:11
13C4 PFOS	N/A	N/A	8.87	8.88	15		08/05/2022 04:11

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	25		08/05/2022 04:11
13C5 PFPeA	N/A	N/A	5.14	5.15	23		08/05/2022 04:11
13C3 PFBS	N/A	N/A	6.04	6.05	21		08/05/2022 04:11
13C2 4:2FTS	N/A	N/A	5.52	5.54	60		08/05/2022 04:11
13C5 PFHxA	N/A	N/A	5.79	5.80	17		08/05/2022 04:11
13C4 PFHpA	N/A	N/A	6.42	6.43	22		08/05/2022 04:11
13C3 PFHxS	N/A	N/A	7.48	7.49	21		08/05/2022 04:11
13C2 6:2FTS	N/A	N/A	6.72	6.74	13		08/05/2022 04:11
13C8 PFOA	N/A	N/A	7.05	7.07	22		08/05/2022 04:11
13C9 PFNA	N/A	N/A	7.71	7.72	25		08/05/2022 04:11
13C8 PFOS	N/A	N/A	8.89	8.88	13	D	08/06/2022 00:51
13C2 8:2FTS	N/A	N/A	8.00	8.01	17		08/05/2022 04:11
13C6 PFDA	N/A	N/A	8.38	8.39	24		08/05/2022 04:11
d3-MeFOSAA	N/A	N/A	8.24	8.25	17		08/05/2022 04:11
13C8 PFOSA	N/A	N/A	10.61	10.61	95		08/05/2022 04:11
d5-EtFOSAA	N/A	N/A	8.53	8.54	13		08/05/2022 04:11
13C7 PFUdA	N/A	N/A	9.06	9.07	10		08/05/2022 04:11
13C2 PFDoA	N/A	N/A	9.73	9.74	10		08/05/2022 04:11
13C2 PFTeDA	N/A	N/A	11.05	11.07	12		08/05/2022 04:11
13C3 HFPO-DA	N/A	N/A	6.04	6.06	20		08/05/2022 04:11
d7-N-MeFOSE	N/A	N/A	12.45	12.45	39		08/05/2022 04:11
d9-N-EtFOSE	N/A	N/A	12.92	12.92	21	R	08/05/2022 04:11
d3-N-MeFOSA	N/A	N/A	12.66	12.66	18	R	08/05/2022 04:11
d5-N-EtFOSA	N/A	N/A	13.08	13.08	97	R	08/05/2022 04:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK15-HA01(0-6)
 Lab Sample ID 10616212015
 Lab File ID B220804B_011
 Matrix Soil
 Collected 07/05/2022 13:55
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.29g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	24		08/05/2022 04:11
PFPeA	N/A	N/A	5.14	5.15	11		08/05/2022 04:11
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/05/2022 04:11
PFBS	0.38	0.43	6.04	6.06	ND		08/05/2022 04:11
PFHxA	0.09	0.07	5.80	5.81	57		08/05/2022 04:11
4:2 FTS	0.00	0.85	0.00	5.54	ND		08/05/2022 04:11
PFPeS	0.46	0.46	6.78	6.79	ND		08/05/2022 04:11
PFHpA	0.31	0.29	6.43	6.44	22		08/05/2022 04:11
DONA	0.00	0.57	0.00	6.67	ND		08/05/2022 04:11
PFHxS	0.39	0.40	7.49	7.49	67		08/05/2022 04:11
PFOA	0.37	0.40	7.06	7.08	30		08/05/2022 04:11
6:2 FTS	0.91	0.97	6.73	6.74	14		08/05/2022 04:11
PFHpS	0.38	0.36	8.20	8.20	ND		08/05/2022 04:11
PFNA	0.13	0.12	7.72	7.73	59		08/05/2022 04:11
PFOSAm	N/A	N/A	10.62	10.61	33	J	08/05/2022 04:11
PFOS	0.44	0.42	8.90	8.90	10	D	08/06/2022 00:51
MeFOSA	0.00	0.51	0.00	12.69	ND		08/05/2022 04:11
PFDA	0.19	0.19	8.40	8.40	93		08/05/2022 04:11
EtFOSAm	0.00	0.59	0.00	13.10	ND		08/05/2022 04:11
8:2 FTS	0.86	0.88	8.01	8.02	17		08/05/2022 04:11
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/05/2022 04:11
PFNS	0.48	0.47	9.57	9.58	16	J	08/05/2022 04:11
PFUnDA	0.14	0.15	9.07	9.08	29		08/05/2022 04:11
NMeFOSAA	0.90	0.90	8.25	8.26	ND		08/05/2022 04:11
NEtFOSAA	0.55	0.71	8.54	8.55	ND		08/05/2022 04:11
PFDS	0.38	0.32	10.23	10.24	16	J	08/05/2022 04:11
PFDOA	0.19	0.20	9.74	9.75	24		08/05/2022 04:11
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 04:11
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 04:11
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 04:11
PFTTrDA	0.18	0.16	10.41	10.42	25		08/05/2022 04:11
PFDoS	0.48	0.48	11.47	11.48	ND		08/05/2022 04:11
PFTDA	0.34	0.30	11.05	11.07	63	J	08/05/2022 04:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK16-HA01(0-6)
 Lab Sample ID 10616212016
 Lab File ID B220804B_012
 Matrix Soil
 Collected 07/05/2022 14:55
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.35g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.040 J	0.093	0.026	0.026	1	375-22-4		08/05/2022 04:31
PFPeA	0.12	0.093	0.027	0.027	1	2706-90-3		08/05/2022 04:31
HFPO-DA	ND	0.093	0.026	0.026	1	13252-13-6		08/05/2022 04:31
PFBS	ND	0.083	0.025	0.025	1	375-73-5		08/05/2022 04:31
PFHxA	0.079 J	0.093	0.026	0.026	1	307-24-4		08/05/2022 04:31
4:2 FTS	ND	0.087	0.022	0.022	1	757124-72-4		08/05/2022 04:31
PFPeS	ND	0.088	0.022	0.022	1	2706-91-4		08/05/2022 04:31
PFHpA	0.073 J	0.093	0.032	0.032	1	375-85-9		08/05/2022 04:31
DONA	ND	0.088	0.034	0.034	1	919005-14-4		08/05/2022 04:31
PFHxS	ND	0.085	0.020	0.020	1	355-46-4		08/05/2022 04:31
PFOA	0.069 J	0.093	0.029	0.029	1	335-67-1		08/05/2022 04:31
6:2 FTS	ND	0.089	0.039	0.039	1	27619-97-2		08/05/2022 04:31
PFHpS	ND	0.089	0.026	0.026	1	375-92-8		08/05/2022 04:31
PFNA	0.049 J	0.093	0.029	0.029	1	375-95-1		08/05/2022 04:31
PFOSAm	ND	0.093	0.027	0.027	1	754-91-6		08/05/2022 04:31
PFOS	0.085 J	0.086	0.028	0.028	1	1763-23-1		08/05/2022 04:31
MeFOSA	ND	0.093	0.025	0.025	1	31506-32-8		08/05/2022 04:31
PFDA	0.090 J	0.093	0.021	0.021	1	335-76-2		08/05/2022 04:31
EtFOSAm	ND	0.093	0.024	0.024	1	4151-50-2		08/05/2022 04:31
8:2 FTS	0.086 J	0.090	0.041	0.041	1	39108-34-4		08/05/2022 04:31
9-CI-PF3ON	ND	0.087	0.023	0.023	1	756426-58-1		08/05/2022 04:31
PFNS	ND	0.090	0.032	0.032	1	68259-12-1		08/05/2022 04:31
PFUnDA	0.073 J	0.093	0.028	0.028	1	2058-94-8		08/05/2022 04:31
NMeFOSAA	ND	0.093	0.026	0.026	1	2355-31-9		08/05/2022 04:31
NEtFOSAA	ND	0.093	0.038	0.038	1	2991-50-6		08/05/2022 04:31
PFDS	ND	0.090	0.026	0.026	1	335-77-3		08/05/2022 04:31
PFDOA	0.049 J	0.093	0.031	0.031	1	307-55-1		08/05/2022 04:31
MeFOSE	ND	0.093	0.028	0.028	1	24448-09-7		08/05/2022 04:31
EtFOSE	ND	0.093	0.030	0.030	1	1691-99-2		08/05/2022 04:31
11-CI-PF3OUdS	ND	0.088	0.024	0.024	1	763051-92-9		08/05/2022 04:31
PFTTrDA	ND	0.093	0.030	0.030	1	72629-94-8		08/05/2022 04:31
PFDoS	ND	0.090	0.024	0.024	1	79780-39-5		08/05/2022 04:31
PFTDA	ND	0.093	0.032	0.032	1	376-06-7		08/05/2022 04:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK16-HA01(0-6)
 Lab Sample ID 10616212016
 Lab File ID B220804B_012
 Matrix Soil
 Collected 07/05/2022 14:55
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.35g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.93	1.0	111	50-150		08/05/2022 04:31
13C4 PFOA	0.93	1.3	143	50-150		08/05/2022 04:31
13C2 PFDA	0.93	1.3	141	50-150		08/05/2022 04:31
13C4 PFOS	0.89	1.2	129	50-150		08/05/2022 04:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.93	0.77	83	25-150		08/05/2022 04:31
13C5 PFPeA	0.93	0.78	84	25-150		08/05/2022 04:31
13C3 PFBS	0.87	0.73	84	25-150		08/05/2022 04:31
13C2 4:2FTS	0.87	0.66	76	25-150		08/05/2022 04:31
13C5 PFHxA	0.93	0.78	84	25-150		08/05/2022 04:31
13C4 PFHpA	0.93	0.74	79	25-150		08/05/2022 04:31
13C3 PFHxS	0.88	0.68	77	25-150		08/05/2022 04:31
13C2 6:2FTS	0.89	0.67	75	25-150		08/05/2022 04:31
13C8 PFOA	0.93	0.72	78	25-150		08/05/2022 04:31
13C9 PFNA	0.93	0.67	72	25-150		08/05/2022 04:31
13C8 PFOS	0.89	0.71	79	25-150		08/05/2022 04:31
13C2 8:2FTS	0.90	0.73	81	25-150		08/05/2022 04:31
13C6 PFDA	0.93	0.68	72	25-150		08/05/2022 04:31
d3-MeFOSAA	0.93	0.77	82	25-150		08/05/2022 04:31
13C8 PFOSA	0.93	0.24	26	25-150		08/05/2022 04:31
d5-EtFOSAA	0.93	0.66	70	25-150		08/05/2022 04:31
13C7 PFUdA	0.93	0.76	81	25-150		08/05/2022 04:31
13C2 PFDoA	0.93	0.66	71	25-150		08/05/2022 04:31
13C2 PFTeDA	0.93	0.98	105	25-150		08/05/2022 04:31
13C3 HFPO-DA	0.93	0.72	77	25-150		08/05/2022 04:31
d7-N-MeFOSE	0.93	0.020	2	10-150	R	08/05/2022 04:31
d9-N-EtFOSE	0.93	0.021	2	10-150	R	08/05/2022 04:31
d3-N-MeFOSA	0.93	0.0027	0	10-150	R	08/05/2022 04:31
d5-N-EtFOSA	0.93	0.0035	0	10-150	R	08/05/2022 04:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK16-HA01(0-6)
 Lab Sample ID 10616212016
 Lab File ID B220804B_012
 Matrix Soil
 Collected 07/05/2022 14:55
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.35g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.80	17		08/05/2022 04:31
13C4 PFOA	N/A	N/A	7.05	7.07	25		08/05/2022 04:31
13C2 PFDA	N/A	N/A	8.38	8.39	20		08/05/2022 04:31
13C4 PFOS	N/A	N/A	8.87	8.88	16		08/05/2022 04:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	21		08/05/2022 04:31
13C5 PFPeA	N/A	N/A	5.14	5.15	24		08/05/2022 04:31
13C3 PFBS	N/A	N/A	6.04	6.05	20		08/05/2022 04:31
13C2 4:2FTS	N/A	N/A	5.53	5.54	71		08/05/2022 04:31
13C5 PFHxA	N/A	N/A	5.79	5.80	13		08/05/2022 04:31
13C4 PFHpA	N/A	N/A	6.42	6.43	17		08/05/2022 04:31
13C3 PFHxS	N/A	N/A	7.48	7.49	16		08/05/2022 04:31
13C2 6:2FTS	N/A	N/A	6.72	6.74	13		08/05/2022 04:31
13C8 PFOA	N/A	N/A	7.06	7.07	22		08/05/2022 04:31
13C9 PFNA	N/A	N/A	7.71	7.72	20		08/05/2022 04:31
13C8 PFOS	N/A	N/A	8.87	8.88	23		08/05/2022 04:31
13C2 8:2FTS	N/A	N/A	7.99	8.01	75		08/05/2022 04:31
13C6 PFDA	N/A	N/A	8.38	8.39	11		08/05/2022 04:31
d3-MeFOSAA	N/A	N/A	8.24	8.25	14		08/05/2022 04:31
13C8 PFOSA	N/A	N/A	10.62	10.61	16		08/05/2022 04:31
d5-EtFOSAA	N/A	N/A	8.53	8.54	10		08/05/2022 04:31
13C7 PFUdA	N/A	N/A	9.05	9.07	15		08/05/2022 04:31
13C2 PFDoA	N/A	N/A	9.73	9.74	11		08/05/2022 04:31
13C2 PFTeDA	N/A	N/A	11.06	11.07	10		08/05/2022 04:31
13C3 HFPO-DA	N/A	N/A	6.05	6.06	20		08/05/2022 04:31
d7-N-MeFOSE	N/A	N/A	12.45	12.45	35	R	08/05/2022 04:31
d9-N-EtFOSE	N/A	N/A	12.93	12.92	14	R	08/05/2022 04:31
d3-N-MeFOSA	N/A	N/A	12.68	12.66	50	R	08/05/2022 04:31
d5-N-EtFOSA	N/A	N/A	13.07	13.08	85	R	08/05/2022 04:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK16-HA01(0-6)
 Lab Sample ID 10616212016
 Lab File ID B220804B_012
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 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.35g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	57	J	08/05/2022 04:31
PFPeA	N/A	N/A	5.14	5.15	24		08/05/2022 04:31
HFPO-DA	1.20	0.27	6.06	6.07	ND		08/05/2022 04:31
PFBS	0.38	0.43	6.04	6.06	ND		08/05/2022 04:31
PFHxA	0.08	0.07	5.80	5.81	21	J	08/05/2022 04:31
4:2 FTS	0.00	0.85	0.00	5.54	ND		08/05/2022 04:31
PFPeS	0.00	0.46	0.00	6.79	ND		08/05/2022 04:31
PFHpA	0.26	0.29	6.42	6.44	14	J	08/05/2022 04:31
DONA	0.00	0.57	0.00	6.67	ND		08/05/2022 04:31
PFHxS	0.53	0.40	7.48	7.49	ND		08/05/2022 04:31
PFOA	0.45	0.40	7.06	7.08	11	J	08/05/2022 04:31
6:2 FTS	0.66	0.97	6.72	6.74	ND		08/05/2022 04:31
PFHpS	0.00	0.36	0.00	8.20	ND		08/05/2022 04:31
PFNA	0.15	0.12	7.72	7.73	92	J	08/05/2022 04:31
PFOSAm	N/A	N/A	10.63	10.61	ND		08/05/2022 04:31
PFOS	0.42	0.44	8.88	8.90	56	J	08/05/2022 04:31
MeFOSA	0.00	0.51	0.00	12.69	ND		08/05/2022 04:31
PFDA	0.17	0.19	8.39	8.40	12	J	08/05/2022 04:31
EtFOSAm	0.00	0.59	0.00	13.10	ND		08/05/2022 04:31
8:2 FTS	0.84	0.88	8.00	8.02	43	J	08/05/2022 04:31
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/05/2022 04:31
PFNS	0.00	0.47	0.00	9.58	ND		08/05/2022 04:31
PFUnDA	0.17	0.15	9.06	9.08	34	J	08/05/2022 04:31
NMeFOSAA	0.00	0.90	0.00	8.26	ND		08/05/2022 04:31
NEtFOSAA	0.00	0.71	0.00	8.55	ND		08/05/2022 04:31
PFDS	0.00	0.32	0.00	10.24	ND		08/05/2022 04:31
PFDOA	0.18	0.20	9.74	9.75	42	J	08/05/2022 04:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 04:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 04:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 04:31
PFTTrDA	0.25	0.16	10.41	10.42	ND		08/05/2022 04:31
PFDoS	0.00	0.48	0.00	11.48	ND		08/05/2022 04:31
PFTDA	0.25	0.30	11.07	11.07	ND		08/05/2022 04:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK17-HA01(0-6)
 Lab Sample ID 10616212017
 Lab File ID B220805B_008
 Matrix Soil
 Collected 07/05/2022 14:40
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.62g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.15	0.089	0.025	0.025	1	375-22-4		08/05/2022 23:31
PFPeA	0.30	0.089	0.025	0.025	1	2706-90-3		08/05/2022 23:31
HFPO-DA	ND	0.089	0.025	0.025	1	13252-13-6		08/05/2022 23:31
PFBS	ND	0.079	0.023	0.023	1	375-73-5		08/05/2022 23:31
PFHxA	0.19	0.089	0.024	0.024	1	307-24-4		08/05/2022 23:31
4:2 FTS	ND	0.083	0.021	0.021	1	757124-72-4		08/05/2022 23:31
PFPeS	ND	0.084	0.021	0.021	1	2706-91-4		08/05/2022 23:31
PFHpA	0.11	0.089	0.031	0.031	1	375-85-9		08/05/2022 23:31
DONA	ND	0.084	0.032	0.032	1	919005-14-4		08/05/2022 23:31
PFHxS	ND	0.081	0.019	0.019	1	355-46-4		08/05/2022 23:31
PFOA	0.13	0.089	0.028	0.028	1	335-67-1		08/05/2022 23:31
6:2 FTS	ND	0.084	0.037	0.037	1	27619-97-2		08/05/2022 23:31
PFHpS	ND	0.084	0.025	0.025	1	375-92-8		08/05/2022 23:31
PFNA	0.075 J	0.089	0.028	0.028	1	375-95-1		08/05/2022 23:31
PFOSAm	ND	0.089	0.026	0.026	1	754-91-6		08/05/2022 23:31
PFOS	0.10	0.082	0.026	0.026	1	1763-23-1		08/05/2022 23:31
MeFOSA	ND	0.089	0.024	0.024	1	31506-32-8		08/05/2022 23:31
PFDA	0.043 J	0.089	0.020	0.020	1	335-76-2		08/05/2022 23:31
EtFOSAm	ND	0.089	0.023	0.023	1	4151-50-2		08/05/2022 23:31
8:2 FTS	ND	0.085	0.039	0.039	1	39108-34-4		08/05/2022 23:31
9-CI-PF3ON	ND	0.083	0.022	0.022	1	756426-58-1		08/05/2022 23:31
PFNS	ND	0.085	0.031	0.031	1	68259-12-1		08/05/2022 23:31
PFUnDA	0.030 J	0.089	0.027	0.027	1	2058-94-8		08/05/2022 23:31
NMeFOSAA	ND	0.089	0.025	0.025	1	2355-31-9		08/05/2022 23:31
NEtFOSAA	ND	0.089	0.036	0.036	1	2991-50-6		08/05/2022 23:31
PFDS	ND	0.086	0.025	0.025	1	335-77-3		08/05/2022 23:31
PFDOA	ND	0.089	0.029	0.029	1	307-55-1		08/05/2022 23:31
MeFOSE	ND	0.089	0.027	0.027	1	24448-09-7		08/05/2022 23:31
EtFOSE	ND	0.089	0.029	0.029	1	1691-99-2		08/05/2022 23:31
11-CI-PF3OUdS	ND	0.084	0.022	0.022	1	763051-92-9		08/05/2022 23:31
PFTTrDA	ND	0.089	0.028	0.028	1	72629-94-8		08/05/2022 23:31
PFDoS	ND	0.086	0.023	0.023	1	79780-39-5		08/05/2022 23:31
PFTDA	ND	0.089	0.030	0.030	1	376-06-7		08/05/2022 23:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK17-HA01(0-6)
 Lab Sample ID 10616212017
 Lab File ID B220805B_008
 Matrix Soil
 Collected 07/05/2022 14:40
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.62g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.89	1.2	138	50-150		08/05/2022 23:31
13C4 PFOA	0.89	1.1	128	50-150		08/05/2022 23:31
13C2 PFDA	0.89	1.1	122	50-150		08/05/2022 23:31
13C4 PFOS	0.85	1.2	137	50-150		08/05/2022 23:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.89	0.79	88	25-150		08/05/2022 23:31
13C5 PFPeA	0.89	0.83	93	25-150		08/05/2022 23:31
13C3 PFBS	0.83	0.77	93	25-150		08/05/2022 23:31
13C2 4:2FTS	0.83	0.69	83	25-150		08/05/2022 23:31
13C5 PFHxA	0.89	0.87	98	25-150		08/05/2022 23:31
13C4 PFHpA	0.89	0.79	88	25-150		08/05/2022 23:31
13C3 PFHxS	0.84	0.74	88	25-150		08/05/2022 23:31
13C2 6:2FTS	0.84	0.77	91	25-150		08/05/2022 23:31
13C8 PFOA	0.89	0.76	85	25-150		08/05/2022 23:31
13C9 PFNA	0.89	0.87	97	25-150		08/05/2022 23:31
13C8 PFOS	0.85	0.91	106	25-150		08/05/2022 23:31
13C2 8:2FTS	0.85	1.1	126	25-150		08/05/2022 23:31
13C6 PFDA	0.89	0.94	106	25-150		08/05/2022 23:31
d3-MeFOSAA	0.89	0.98	111	25-150		08/05/2022 23:31
13C8 PFOSA	0.89	0.62	70	25-150		08/05/2022 23:31
d5-EtFOSAA	0.89	0.86	97	25-150		08/05/2022 23:31
13C7 PFUdA	0.89	0.87	97	25-150		08/05/2022 23:31
13C2 PFDoA	0.89	0.79	88	25-150		08/05/2022 23:31
13C2 PFTeDA	0.89	0.76	86	25-150		08/05/2022 23:31
13C3 HFPO-DA	0.89	0.89	100	25-150		08/05/2022 23:31
d7-N-MeFOSE	0.89	0.041	5	10-150	R	08/05/2022 23:31
d9-N-EtFOSE	0.89	0.064	7	10-150	R	08/05/2022 23:31
d3-N-MeFOSA	0.89	0.0045	1	10-150	R	08/05/2022 23:31
d5-N-EtFOSA	0.89	0.0050	1	10-150	R	08/05/2022 23:31

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Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.80	33		08/05/2022 23:31
13C4 PFOA	N/A	N/A	7.07	7.07	25		08/05/2022 23:31
13C2 PFDA	N/A	N/A	8.41	8.39	15		08/05/2022 23:31
13C4 PFOS	N/A	N/A	8.90	8.88	14		08/05/2022 23:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	29		08/05/2022 23:31
13C5 PFPeA	N/A	N/A	5.14	5.15	25		08/05/2022 23:31
13C3 PFBS	N/A	N/A	6.04	6.05	13		08/05/2022 23:31
13C2 4:2FTS	N/A	N/A	5.53	5.54	53		08/05/2022 23:31
13C5 PFHxA	N/A	N/A	5.80	5.80	21		08/05/2022 23:31
13C4 PFHpA	N/A	N/A	6.43	6.43	21		08/05/2022 23:31
13C3 PFHxS	N/A	N/A	7.48	7.49	15		08/05/2022 23:31
13C2 6:2FTS	N/A	N/A	6.74	6.74	87		08/05/2022 23:31
13C8 PFOA	N/A	N/A	7.07	7.07	20		08/05/2022 23:31
13C9 PFNA	N/A	N/A	7.73	7.72	21		08/05/2022 23:31
13C8 PFOS	N/A	N/A	8.90	8.88	11		08/05/2022 23:31
13C2 8:2FTS	N/A	N/A	8.01	8.01	11		08/05/2022 23:31
13C6 PFDA	N/A	N/A	8.40	8.39	20		08/05/2022 23:31
d3-MeFOSAA	N/A	N/A	8.26	8.25	21		08/05/2022 23:31
13C8 PFOSA	N/A	N/A	10.65	10.61	26		08/05/2022 23:31
d5-EtFOSAA	N/A	N/A	8.56	8.54	11		08/05/2022 23:31
13C7 PFUdA	N/A	N/A	9.09	9.07	23		08/05/2022 23:31
13C2 PFDoA	N/A	N/A	9.76	9.74	10		08/05/2022 23:31
13C2 PFTeDA	N/A	N/A	11.08	11.07	13		08/05/2022 23:31
13C3 HFPO-DA	N/A	N/A	6.06	6.06	18		08/05/2022 23:31
d7-N-MeFOSE	N/A	N/A	12.47	12.45	47	R	08/05/2022 23:31
d9-N-EtFOSE	N/A	N/A	12.93	12.92	17	R	08/05/2022 23:31
d3-N-MeFOSA	N/A	N/A	12.69	12.66	42	R	08/05/2022 23:31
d5-N-EtFOSA	N/A	N/A	13.09	13.08	12	R	08/05/2022 23:31

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Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	11		08/05/2022 23:31
PFPeA	N/A	N/A	5.15	5.15	34		08/05/2022 23:31
HFPO-DA	0.29	0.30	6.07	6.07	ND		08/05/2022 23:31
PFBS	0.24	0.48	6.02	6.06	ND		08/05/2022 23:31
PFHxA	0.07	0.08	5.80	5.81	19		08/05/2022 23:31
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/05/2022 23:31
PFPeS	0.92	0.43	6.79	6.79	ND		08/05/2022 23:31
PFHpA	0.35	0.30	6.44	6.44	22		08/05/2022 23:31
DONA	0.00	0.59	0.00	6.67	ND		08/05/2022 23:31
PFHxS	0.36	0.40	7.49	7.49	ND		08/05/2022 23:31
PFOA	0.37	0.40	7.07	7.08	15		08/05/2022 23:31
6:2 FTS	1.10	0.87	6.73	6.74	ND		08/05/2022 23:31
PFHpS	0.00	0.42	0.00	8.20	ND		08/05/2022 23:31
PFNA	0.13	0.13	7.73	7.73	27	J	08/05/2022 23:31
PFOSAm	N/A	N/A	10.67	10.61	ND		08/05/2022 23:31
PFOS	0.44	0.42	8.91	8.90	67		08/05/2022 23:31
MeFOSA	0.00	0.59	0.00	12.69	ND		08/05/2022 23:31
PFDA	0.20	0.18	8.41	8.40	13	J	08/05/2022 23:31
EtFOSAm	0.00	0.63	0.00	13.10	ND		08/05/2022 23:31
8:2 FTS	1.00	0.78	8.02	8.02	ND		08/05/2022 23:31
9-CI-PF3ON	0.00	0.07	0.00	9.39	ND		08/05/2022 23:31
PFNS	0.00	0.49	0.00	9.58	ND		08/05/2022 23:31
PFUnDA	0.13	0.13	9.10	9.08	61	J	08/05/2022 23:31
NMeFOSAA	0.00	0.90	0.00	8.26	ND		08/05/2022 23:31
NEtFOSAA	0.00	0.58	0.00	8.55	ND		08/05/2022 23:31
PFDS	0.43	0.37	10.25	10.24	ND		08/05/2022 23:31
PFDOA	0.17	0.17	9.77	9.75	ND		08/05/2022 23:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 23:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 23:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 23:31
PFTTrDA	0.15	0.19	10.44	10.42	ND		08/05/2022 23:31
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 23:31
PFTDA	0.27	0.25	11.08	11.07	ND		08/05/2022 23:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK18-HA01(0-6)
 Lab Sample ID 10616212018
 Lab File ID B220805B_009
 Matrix Soil
 Collected 07/05/2022 14:25
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.26g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.12	0.095	0.027	0.027	1	375-22-4		08/05/2022 23:51
PFPeA	0.41	0.095	0.027	0.027	1	2706-90-3		08/05/2022 23:51
HFPO-DA	ND	0.095	0.026	0.026	1	13252-13-6		08/05/2022 23:51
PFBS	ND	0.084	0.025	0.025	1	375-73-5		08/05/2022 23:51
PFHxA	0.21	0.095	0.026	0.026	1	307-24-4		08/05/2022 23:51
4:2 FTS	ND	0.089	0.022	0.022	1	757124-72-4		08/05/2022 23:51
PFPeS	ND	0.089	0.023	0.023	1	2706-91-4		08/05/2022 23:51
PFHpA	0.30	0.095	0.033	0.033	1	375-85-9		08/05/2022 23:51
DONA	ND	0.090	0.034	0.034	1	919005-14-4		08/05/2022 23:51
PFHxS	ND	0.086	0.021	0.021	1	355-46-4		08/05/2022 23:51
PFOA	0.26	0.095	0.030	0.030	1	335-67-1		08/05/2022 23:51
6:2 FTS	ND	0.090	0.039	0.039	1	27619-97-2		08/05/2022 23:51
PFHpS	ND	0.090	0.026	0.026	1	375-92-8		08/05/2022 23:51
PFNA	0.29	0.095	0.030	0.030	1	375-95-1		08/05/2022 23:51
PFOSAm	ND	0.095	0.028	0.028	1	754-91-6		08/05/2022 23:51
PFOS	0.19	0.088	0.028	0.028	1	1763-23-1		08/05/2022 23:51
MeFOSA	ND	0.095	0.026	0.026	1	31506-32-8		08/05/2022 23:51
PFDA	1.0	0.095	0.022	0.022	1	335-76-2		08/05/2022 23:51
EtFOSAm	ND	0.095	0.024	0.024	1	4151-50-2		08/05/2022 23:51
8:2 FTS	0.32	0.091	0.042	0.042	1	39108-34-4		08/05/2022 23:51
9-CI-PF3ON	ND	0.089	0.024	0.024	1	756426-58-1		08/05/2022 23:51
PFNS	ND	0.091	0.033	0.033	1	68259-12-1		08/05/2022 23:51
PFUnDA	0.32	0.095	0.029	0.029	1	2058-94-8		08/05/2022 23:51
NMeFOSAA	ND	0.095	0.027	0.027	1	2355-31-9		08/05/2022 23:51
NEtFOSAA	ND	0.095	0.038	0.038	1	2991-50-6		08/05/2022 23:51
PFDS	ND	0.092	0.027	0.027	1	335-77-3		08/05/2022 23:51
PFDOA	0.16	0.095	0.031	0.031	1	307-55-1		08/05/2022 23:51
MeFOSE	ND	0.095	0.029	0.029	1	24448-09-7		08/05/2022 23:51
EtFOSE	ND	0.095	0.031	0.031	1	1691-99-2		08/05/2022 23:51
11-CI-PF3OUdS	ND	0.090	0.024	0.024	1	763051-92-9		08/05/2022 23:51
PFTTrDA	ND	0.095	0.030	0.030	1	72629-94-8		08/05/2022 23:51
PFDoS	ND	0.092	0.025	0.025	1	79780-39-5		08/05/2022 23:51
PFTDA	ND	0.095	0.033	0.033	1	376-06-7		08/05/2022 23:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK18-HA01(0-6)
 Lab Sample ID 10616212018
 Lab File ID B220805B_009
 Matrix Soil
 Collected 07/05/2022 14:25
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.26g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.95	1.2	128	50-150		08/05/2022 23:51
13C4 PFOA	0.95	1.1	118	50-150		08/05/2022 23:51
13C2 PFDA	0.95	1.2	123	50-150		08/05/2022 23:51
13C4 PFOS	0.91	1.1	123	50-150		08/05/2022 23:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.95	0.75	79	25-150		08/05/2022 23:51
13C5 PFPeA	0.95	0.78	82	25-150		08/05/2022 23:51
13C3 PFBS	0.88	0.74	84	25-150		08/05/2022 23:51
13C2 4:2FTS	0.89	0.67	76	25-150		08/05/2022 23:51
13C5 PFHxA	0.95	0.87	92	25-150		08/05/2022 23:51
13C4 PFHpA	0.95	0.79	83	25-150		08/05/2022 23:51
13C3 PFHxS	0.90	0.76	85	25-150		08/05/2022 23:51
13C2 6:2FTS	0.90	0.77	85	25-150		08/05/2022 23:51
13C8 PFOA	0.95	0.80	84	25-150		08/05/2022 23:51
13C9 PFNA	0.95	0.90	95	25-150		08/05/2022 23:51
13C8 PFOS	0.91	0.80	88	25-150		08/05/2022 23:51
13C2 8:2FTS	0.91	0.97	107	25-150		08/05/2022 23:51
13C6 PFDA	0.95	0.85	90	25-150		08/05/2022 23:51
d3-MeFOSAA	0.95	0.75	79	25-150		08/05/2022 23:51
13C8 PFOSA	0.95	0.45	47	25-150		08/05/2022 23:51
d5-EtFOSAA	0.95	0.83	87	25-150		08/05/2022 23:51
13C7 PFUdA	0.95	0.84	89	25-150		08/05/2022 23:51
13C2 PFDoA	0.95	0.91	96	25-150		08/05/2022 23:51
13C2 PFTeDA	0.95	0.90	95	25-150		08/05/2022 23:51
13C3 HFPO-DA	0.95	0.83	88	25-150		08/05/2022 23:51
d7-N-MeFOSE	0.95	0.020	2	10-150	R	08/05/2022 23:51
d9-N-EtFOSE	0.95	0.033	3	10-150	R	08/05/2022 23:51
d3-N-MeFOSA	0.95	0.0031	0	10-150	R	08/05/2022 23:51
d5-N-EtFOSA	0.95	0.0040	0	10-150	R	08/05/2022 23:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK18-HA01(0-6)
 Lab Sample ID 10616212018
 Lab File ID B220805B_009
 Matrix Soil
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 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.26g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.80	16		08/05/2022 23:51
13C4 PFOA	N/A	N/A	7.07	7.07	21		08/05/2022 23:51
13C2 PFDA	N/A	N/A	8.40	8.39	18		08/05/2022 23:51
13C4 PFOS	N/A	N/A	8.89	8.88	14		08/05/2022 23:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	24		08/05/2022 23:51
13C5 PFPeA	N/A	N/A	5.14	5.15	25		08/05/2022 23:51
13C3 PFBS	N/A	N/A	6.05	6.05	18		08/05/2022 23:51
13C2 4:2FTS	N/A	N/A	5.54	5.54	47		08/05/2022 23:51
13C5 PFHxA	N/A	N/A	5.80	5.80	19		08/05/2022 23:51
13C4 PFHpA	N/A	N/A	6.43	6.43	23		08/05/2022 23:51
13C3 PFHxS	N/A	N/A	7.48	7.49	15		08/05/2022 23:51
13C2 6:2FTS	N/A	N/A	6.74	6.74	10		08/05/2022 23:51
13C8 PFOA	N/A	N/A	7.07	7.07	27		08/05/2022 23:51
13C9 PFNA	N/A	N/A	7.72	7.72	19		08/05/2022 23:51
13C8 PFOS	N/A	N/A	8.89	8.88	14		08/05/2022 23:51
13C2 8:2FTS	N/A	N/A	8.01	8.01	17		08/05/2022 23:51
13C6 PFDA	N/A	N/A	8.40	8.39	17		08/05/2022 23:51
d3-MeFOSAA	N/A	N/A	8.26	8.25	13		08/05/2022 23:51
13C8 PFOSA	N/A	N/A	10.65	10.61	20		08/05/2022 23:51
d5-EtFOSAA	N/A	N/A	8.55	8.54	15		08/05/2022 23:51
13C7 PFUdA	N/A	N/A	9.08	9.07	22		08/05/2022 23:51
13C2 PFDaA	N/A	N/A	9.76	9.74	10		08/05/2022 23:51
13C2 PFTeDA	N/A	N/A	11.08	11.07	15		08/05/2022 23:51
13C3 HFPO-DA	N/A	N/A	6.06	6.06	13		08/05/2022 23:51
d7-N-MeFOSE	N/A	N/A	12.47	12.45	25	R	08/05/2022 23:51
d9-N-EtFOSE	N/A	N/A	12.93	12.92	85	R	08/05/2022 23:51
d3-N-MeFOSA	N/A	N/A	12.67	12.66	50	R	08/05/2022 23:51
d5-N-EtFOSA	N/A	N/A	13.09	13.08	93	R	08/05/2022 23:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK18-HA01(0-6)
 Lab Sample ID 10616212018
 Lab File ID B220805B_009
 Matrix Soil
 Collected 07/05/2022 14:25
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.26g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	12		08/05/2022 23:51
PFPeA	N/A	N/A	5.15	5.15	36		08/05/2022 23:51
HFPO-DA	0.00	0.30	0.00	6.07	ND		08/05/2022 23:51
PFBS	0.00	0.48	0.00	6.06	ND		08/05/2022 23:51
PFHxA	0.08	0.08	5.81	5.81	26		08/05/2022 23:51
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/05/2022 23:51
PFPeS	0.00	0.43	0.00	6.79	ND		08/05/2022 23:51
PFHpA	0.28	0.30	6.44	6.44	21		08/05/2022 23:51
DONA	0.00	0.59	0.00	6.67	ND		08/05/2022 23:51
PFHxS	0.40	0.40	7.49	7.49	ND		08/05/2022 23:51
PFOA	0.42	0.40	7.07	7.08	16		08/05/2022 23:51
6:2 FTS	1.00	0.87	6.74	6.74	ND		08/05/2022 23:51
PFHpS	0.00	0.42	0.00	8.20	ND		08/05/2022 23:51
PFNA	0.12	0.13	7.73	7.73	57		08/05/2022 23:51
PFOSAm	N/A	N/A	10.66	10.61	ND		08/05/2022 23:51
PFOS	0.41	0.42	8.90	8.90	51		08/05/2022 23:51
MeFOSA	0.00	0.59	0.00	12.69	ND		08/05/2022 23:51
PFDA	0.16	0.18	8.41	8.40	64		08/05/2022 23:51
EtFOSAm	0.00	0.63	0.00	13.10	ND		08/05/2022 23:51
8:2 FTS	0.99	0.78	8.02	8.02	88		08/05/2022 23:51
9-Cl-PF3ON	0.00	0.07	0.00	9.39	ND		08/05/2022 23:51
PFNS	0.00	0.49	0.00	9.58	ND		08/05/2022 23:51
PFUnDA	0.17	0.13	9.09	9.08	14		08/05/2022 23:51
NMeFOSAA	0.00	0.90	0.00	8.26	ND		08/05/2022 23:51
NEtFOSAA	0.00	0.58	0.00	8.55	ND		08/05/2022 23:51
PFDS	0.45	0.37	10.26	10.24	ND		08/05/2022 23:51
PFDOA	0.17	0.17	9.76	9.75	19		08/05/2022 23:51
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 23:51
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 23:51
11-Cl-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 23:51
PFTTrDA	0.16	0.19	10.43	10.42	ND		08/05/2022 23:51
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 23:51
PFTDA	0.29	0.25	11.08	11.07	ND		08/05/2022 23:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK19-HA01(0-6)
 Lab Sample ID 10616212019
 Lab File ID B220805B_010
 Matrix Soil
 Collected 07/05/2022 14:10
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.27g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.19	0.095	0.027	0.027	1	375-22-4		08/06/2022 00:11
PFPeA	0.90	0.095	0.027	0.027	1	2706-90-3		08/06/2022 00:11
HFPO-DA	ND	0.095	0.026	0.026	1	13252-13-6		08/06/2022 00:11
PFBS	ND	0.084	0.025	0.025	1	375-73-5		08/06/2022 00:11
PFHxA	0.25	0.095	0.026	0.026	1	307-24-4		08/06/2022 00:11
4:2 FTS	ND	0.089	0.022	0.022	1	757124-72-4		08/06/2022 00:11
PFPeS	ND	0.089	0.023	0.023	1	2706-91-4		08/06/2022 00:11
PFHpA	0.14	0.095	0.033	0.033	1	375-85-9		08/06/2022 00:11
DONA	ND	0.090	0.034	0.034	1	919005-14-4		08/06/2022 00:11
PFHxS	ND	0.086	0.021	0.021	1	355-46-4		08/06/2022 00:11
PFOA	0.15	0.095	0.030	0.030	1	335-67-1		08/06/2022 00:11
6:2 FTS	0.86	0.090	0.039	0.039	1	27619-97-2		08/06/2022 00:11
PFHpS	ND	0.090	0.026	0.026	1	375-92-8		08/06/2022 00:11
PFNA	0.13	0.095	0.030	0.030	1	375-95-1		08/06/2022 00:11
PFOSAm	ND	0.095	0.028	0.028	1	754-91-6		08/06/2022 00:11
PFOS	0.37	0.088	0.028	0.028	1	1763-23-1		08/06/2022 00:11
MeFOSA	ND	0.095	0.026	0.026	1	31506-32-8		08/06/2022 00:11
PFDA	0.11	0.095	0.022	0.022	1	335-76-2		08/06/2022 00:11
EtFOSAm	ND	0.095	0.024	0.024	1	4151-50-2		08/06/2022 00:11
8:2 FTS	0.65	0.091	0.042	0.042	1	39108-34-4		08/06/2022 00:11
9-CI-PF3ON	ND	0.088	0.024	0.024	1	756426-58-1		08/06/2022 00:11
PFNS	ND	0.091	0.033	0.033	1	68259-12-1		08/06/2022 00:11
PFUnDA	ND	0.095	0.029	0.029	1	2058-94-8		08/06/2022 00:11
NMeFOSAA	ND	0.095	0.027	0.027	1	2355-31-9		08/06/2022 00:11
NEtFOSAA	ND	0.095	0.038	0.038	1	2991-50-6		08/06/2022 00:11
PFDS	ND	0.092	0.027	0.027	1	335-77-3		08/06/2022 00:11
PFDOA	ND	0.095	0.031	0.031	1	307-55-1		08/06/2022 00:11
MeFOSE	ND	0.095	0.029	0.029	1	24448-09-7		08/06/2022 00:11
EtFOSE	ND	0.095	0.031	0.031	1	1691-99-2		08/06/2022 00:11
11-CI-PF3OUdS	ND	0.089	0.024	0.024	1	763051-92-9		08/06/2022 00:11
PFTTrDA	ND	0.095	0.030	0.030	1	72629-94-8		08/06/2022 00:11
PFDoS	ND	0.092	0.025	0.025	1	79780-39-5		08/06/2022 00:11
PFTDA	ND	0.095	0.033	0.033	1	376-06-7		08/06/2022 00:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK19-HA01(0-6)
 Lab Sample ID 10616212019
 Lab File ID B220805B_010
 Matrix Soil
 Collected 07/05/2022 14:10
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.27g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.95	1.2	129	50-150		08/06/2022 00:11
13C4 PFOA	0.95	1.2	124	50-150		08/06/2022 00:11
13C2 PFDA	0.95	1.2	124	50-150		08/06/2022 00:11
13C4 PFOS	0.91	1.1	124	50-150		08/06/2022 00:11

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.95	0.79	83	25-150		08/06/2022 00:11
13C5 PFPeA	0.95	0.82	87	25-150		08/06/2022 00:11
13C3 PFBS	0.88	0.71	80	25-150		08/06/2022 00:11
13C2 4:2FTS	0.89	0.67	76	25-150		08/06/2022 00:11
13C5 PFHxA	0.95	0.90	94	25-150		08/06/2022 00:11
13C4 PFHpA	0.95	0.84	89	25-150		08/06/2022 00:11
13C3 PFHxS	0.90	0.78	87	25-150		08/06/2022 00:11
13C2 6:2FTS	0.90	0.72	80	25-150		08/06/2022 00:11
13C8 PFOA	0.95	0.79	83	25-150		08/06/2022 00:11
13C9 PFNA	0.95	0.92	97	25-150		08/06/2022 00:11
13C8 PFOS	0.91	0.83	91	25-150		08/06/2022 00:11
13C2 8:2FTS	0.91	0.98	108	25-150		08/06/2022 00:11
13C6 PFDA	0.95	0.89	94	25-150		08/06/2022 00:11
d3-MeFOSAA	0.95	0.83	87	25-150		08/06/2022 00:11
13C8 PFOSA	0.95	0.44	47	25-150		08/06/2022 00:11
d5-EtFOSAA	0.95	0.87	91	25-150		08/06/2022 00:11
13C7 PFUdA	0.95	0.89	94	25-150		08/06/2022 00:11
13C2 PFDaA	0.95	0.71	75	25-150		08/06/2022 00:11
13C2 PFTeDA	0.95	0.81	85	25-150		08/06/2022 00:11
13C3 HFPO-DA	0.95	0.82	87	25-150		08/06/2022 00:11
d7-N-MeFOSE	0.95	0.019	2	10-150	R	08/06/2022 00:11
d9-N-EtFOSE	0.95	0.025	3	10-150	R	08/06/2022 00:11
d3-N-MeFOSA	0.95	0.0040	0	10-150	R	08/06/2022 00:11
d5-N-EtFOSA	0.95	0.0049	1	10-150	R	08/06/2022 00:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK19-HA01(0-6)
 Lab Sample ID 10616212019
 Lab File ID B220805B_010
 Matrix Soil
 Collected 07/05/2022 14:10
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.27g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.80	21		08/06/2022 00:11
13C4 PFOA	N/A	N/A	7.07	7.07	22		08/06/2022 00:11
13C2 PFDA	N/A	N/A	8.40	8.39	17		08/06/2022 00:11
13C4 PFOS	N/A	N/A	8.89	8.88	19		08/06/2022 00:11

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	24		08/06/2022 00:11
13C5 PFPeA	N/A	N/A	5.14	5.15	25		08/06/2022 00:11
13C3 PFBS	N/A	N/A	6.05	6.05	29		08/06/2022 00:11
13C2 4:2FTS	N/A	N/A	5.54	5.54	69		08/06/2022 00:11
13C5 PFHxA	N/A	N/A	5.80	5.80	14		08/06/2022 00:11
13C4 PFHpA	N/A	N/A	6.44	6.43	21		08/06/2022 00:11
13C3 PFHxS	N/A	N/A	7.49	7.49	18		08/06/2022 00:11
13C2 6:2FTS	N/A	N/A	6.74	6.74	16		08/06/2022 00:11
13C8 PFOA	N/A	N/A	7.07	7.07	32		08/06/2022 00:11
13C9 PFNA	N/A	N/A	7.73	7.72	23		08/06/2022 00:11
13C8 PFOS	N/A	N/A	8.90	8.88	24		08/06/2022 00:11
13C2 8:2FTS	N/A	N/A	8.02	8.01	87		08/06/2022 00:11
13C6 PFDA	N/A	N/A	8.40	8.39	23		08/06/2022 00:11
d3-MeFOSAA	N/A	N/A	8.26	8.25	20		08/06/2022 00:11
13C8 PFOSA	N/A	N/A	10.65	10.61	20		08/06/2022 00:11
d5-EtFOSAA	N/A	N/A	8.55	8.54	10		08/06/2022 00:11
13C7 PFUdA	N/A	N/A	9.09	9.07	21		08/06/2022 00:11
13C2 PFDoA	N/A	N/A	9.76	9.74	10		08/06/2022 00:11
13C2 PFTeDA	N/A	N/A	11.08	11.07	11		08/06/2022 00:11
13C3 HFPO-DA	N/A	N/A	6.06	6.06	15		08/06/2022 00:11
d7-N-MeFOSE	N/A	N/A	12.47	12.45	39	R	08/06/2022 00:11
d9-N-EtFOSE	N/A	N/A	12.93	12.92	10	R	08/06/2022 00:11
d3-N-MeFOSA	N/A	N/A	12.67	12.66	63	R	08/06/2022 00:11
d5-N-EtFOSA	N/A	N/A	13.09	13.08	12	R	08/06/2022 00:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK19-HA01(0-6)
 Lab Sample ID 10616212019
 Lab File ID B220805B_010
 Matrix Soil
 Collected 07/05/2022 14:10
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.27g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	16		08/06/2022 00:11
PFPeA	N/A	N/A	5.15	5.15	64		08/06/2022 00:11
HFPO-DA	0.00	0.30	0.00	6.07	ND		08/06/2022 00:11
PFBS	0.35	0.48	6.05	6.06	ND		08/06/2022 00:11
PFHxA	0.08	0.08	5.81	5.81	35		08/06/2022 00:11
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/06/2022 00:11
PFPeS	0.44	0.43	6.79	6.79	ND		08/06/2022 00:11
PFHpA	0.29	0.30	6.44	6.44	20		08/06/2022 00:11
DONA	0.00	0.59	0.00	6.67	ND		08/06/2022 00:11
PFHxS	0.41	0.40	7.50	7.49	ND		08/06/2022 00:11
PFOA	0.46	0.40	7.08	7.08	15		08/06/2022 00:11
6:2 FTS	0.90	0.87	6.74	6.74	62		08/06/2022 00:11
PFHpS	0.00	0.42	0.00	8.20	ND		08/06/2022 00:11
PFNA	0.13	0.13	7.73	7.73	20		08/06/2022 00:11
PFOSAm	N/A	N/A	10.66	10.61	ND		08/06/2022 00:11
PFOS	0.42	0.42	8.91	8.90	48		08/06/2022 00:11
MeFOSA	0.00	0.59	0.00	12.69	ND		08/06/2022 00:11
PFDA	0.15	0.18	8.41	8.40	94		08/06/2022 00:11
EtFOSAm	0.00	0.63	0.00	13.10	ND		08/06/2022 00:11
8:2 FTS	0.76	0.78	8.02	8.02	13		08/06/2022 00:11
9-CI-PF3ON	0.00	0.07	0.00	9.39	ND		08/06/2022 00:11
PFNS	0.00	0.49	0.00	9.58	ND		08/06/2022 00:11
PFUnDA	0.19	0.13	9.09	9.08	ND		08/06/2022 00:11
NMeFOSAA	0.00	0.90	0.00	8.26	ND		08/06/2022 00:11
NEtFOSAA	0.00	0.58	0.00	8.55	ND		08/06/2022 00:11
PFDS	0.00	0.37	0.00	10.24	ND		08/06/2022 00:11
PFDOA	0.19	0.17	9.77	9.75	ND		08/06/2022 00:11
MeFOSE	N/A	N/A	0.00	12.49	ND		08/06/2022 00:11
EtFOSE	0.00	0.00	0.00	12.96	ND		08/06/2022 00:11
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/06/2022 00:11
PFTTrDA	0.29	0.19	10.43	10.42	ND		08/06/2022 00:11
PFDoS	0.00	0.49	0.00	11.48	ND		08/06/2022 00:11
PFTDA	0.15	0.25	11.08	11.07	ND		08/06/2022 00:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK20-HA01(0-6)
 Lab Sample ID 10616212020
 Lab File ID B220804B_017
 Matrix Soil
 Collected 07/05/2022 15:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.10g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.27	0.098	0.028	0.028	1	375-22-4		08/05/2022 06:11
PFPeA	1.5	0.098	0.028	0.028	1	2706-90-3		08/05/2022 06:11
HFPO-DA	ND	0.098	0.027	0.027	1	13252-13-6		08/05/2022 06:11
PFBS	ND	0.087	0.026	0.026	1	375-73-5		08/05/2022 06:11
PFHxA	0.50	0.098	0.027	0.027	1	307-24-4		08/05/2022 06:11
4:2 FTS	ND	0.092	0.023	0.023	1	757124-72-4		08/05/2022 06:11
PFPeS	ND	0.092	0.024	0.024	1	2706-91-4		08/05/2022 06:11
PFHpA	0.21	0.098	0.034	0.034	1	375-85-9		08/05/2022 06:11
DONA	ND	0.093	0.036	0.036	1	919005-14-4		08/05/2022 06:11
PFHxS	0.089 J	0.089	0.021	0.021	1	355-46-4		08/05/2022 06:11
PFOA	0.35	0.098	0.030	0.030	1	335-67-1		08/05/2022 06:11
6:2 FTS	0.18	0.093	0.041	0.041	1	27619-97-2		08/05/2022 06:11
PFHpS	ND	0.093	0.027	0.027	1	375-92-8		08/05/2022 06:11
PFNA	0.18	0.098	0.030	0.030	1	375-95-1		08/05/2022 06:11
PFOSAm	ND	0.098	0.029	0.029	1	754-91-6		08/05/2022 06:11
PFOS	1.2	0.091	0.029	0.029	1	1763-23-1		08/05/2022 06:11
MeFOSA	ND	0.098	0.027	0.027	1	31506-32-8		08/05/2022 06:11
PFDA	0.23	0.098	0.022	0.022	1	335-76-2		08/05/2022 06:11
EtFOSAm	ND	0.098	0.025	0.025	1	4151-50-2		08/05/2022 06:11
8:2 FTS	0.13	0.094	0.043	0.043	1	39108-34-4		08/05/2022 06:11
9-CI-PF3ON	ND	0.091	0.025	0.025	1	756426-58-1		08/05/2022 06:11
PFNS	ND	0.094	0.034	0.034	1	68259-12-1		08/05/2022 06:11
PFUnDA	0.081 J	0.098	0.030	0.030	1	2058-94-8		08/05/2022 06:11
NMeFOSAA	ND	0.098	0.028	0.028	1	2355-31-9		08/05/2022 06:11
NEtFOSAA	ND	0.098	0.039	0.039	1	2991-50-6		08/05/2022 06:11
PFDS	ND	0.095	0.028	0.028	1	335-77-3		08/05/2022 06:11
PFDOA	ND	0.098	0.032	0.032	1	307-55-1		08/05/2022 06:11
MeFOSE	ND	0.098	0.030	0.030	1	24448-09-7		08/05/2022 06:11
EtFOSE	ND	0.098	0.032	0.032	1	1691-99-2		08/05/2022 06:11
11-CI-PF3OUdS	ND	0.092	0.025	0.025	1	763051-92-9		08/05/2022 06:11
PFTTrDA	ND	0.098	0.031	0.031	1	72629-94-8		08/05/2022 06:11
PFDoS	ND	0.095	0.026	0.026	1	79780-39-5		08/05/2022 06:11
PFTDA	ND	0.098	0.034	0.034	1	376-06-7		08/05/2022 06:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK20-HA01(0-6)
 Lab Sample ID 10616212020
 Lab File ID B220804B_017
 Matrix Soil
 Collected 07/05/2022 15:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.10g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.98	1.2	120	50-150		08/05/2022 06:11
13C4 PFOA	0.98	0.94	96	50-150		08/05/2022 06:11
13C2 PFDA	0.98	1.1	112	50-150		08/05/2022 06:11
13C4 PFOS	0.94	1.1	120	50-150		08/05/2022 06:11

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.98	0.78	80	25-150		08/05/2022 06:11
13C5 PFPeA	0.98	0.75	77	25-150		08/05/2022 06:11
13C3 PFBS	0.91	0.81	88	25-150		08/05/2022 06:11
13C2 4:2FTS	0.92	0.73	80	25-150		08/05/2022 06:11
13C5 PFHxA	0.98	0.82	84	25-150		08/05/2022 06:11
13C4 PFHpA	0.98	0.87	89	25-150		08/05/2022 06:11
13C3 PFHxS	0.93	0.74	79	25-150		08/05/2022 06:11
13C2 6:2FTS	0.93	0.73	79	25-150		08/05/2022 06:11
13C8 PFOA	0.98	0.75	77	25-150		08/05/2022 06:11
13C9 PFNA	0.98	0.84	86	25-150		08/05/2022 06:11
13C8 PFOS	0.94	0.80	85	25-150		08/05/2022 06:11
13C2 8:2FTS	0.94	0.94	100	25-150		08/05/2022 06:11
13C6 PFDA	0.98	0.89	91	25-150		08/05/2022 06:11
d3-MeFOSAA	0.98	0.78	79	25-150		08/05/2022 06:11
13C8 PFOSA	0.98	0.55	56	25-150		08/05/2022 06:11
d5-EtFOSAA	0.98	0.85	87	25-150		08/05/2022 06:11
13C7 PFUdA	0.98	0.99	101	25-150		08/05/2022 06:11
13C2 PFDoA	0.98	0.85	87	25-150		08/05/2022 06:11
13C2 PFTeDA	0.98	0.78	80	25-150		08/05/2022 06:11
13C3 HFPO-DA	0.98	0.77	79	25-150		08/05/2022 06:11
d7-N-MeFOSE	0.98	0.035	4	10-150	R	08/05/2022 06:11
d9-N-EtFOSE	0.98	0.045	5	10-150	R	08/05/2022 06:11
d3-N-MeFOSA	0.98	0.0054	1	10-150	R	08/05/2022 06:11
d5-N-EtFOSA	0.98	0.0050	1	10-150	R	08/05/2022 06:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK20-HA01(0-6)
 Lab Sample ID 10616212020
 Lab File ID B220804B_017
 Matrix Soil
 Collected 07/05/2022 15:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.10g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.78	5.80	22		08/05/2022 06:11
13C4 PFOA	N/A	N/A	7.05	7.07	20		08/05/2022 06:11
13C2 PFDA	N/A	N/A	8.38	8.39	15		08/05/2022 06:11
13C4 PFOS	N/A	N/A	8.87	8.88	17		08/05/2022 06:11

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	22		08/05/2022 06:11
13C5 PFPeA	N/A	N/A	5.13	5.15	21		08/05/2022 06:11
13C3 PFBS	N/A	N/A	6.04	6.05	18		08/05/2022 06:11
13C2 4:2FTS	N/A	N/A	5.52	5.54	77		08/05/2022 06:11
13C5 PFHxA	N/A	N/A	5.78	5.80	22		08/05/2022 06:11
13C4 PFHpA	N/A	N/A	6.41	6.43	15		08/05/2022 06:11
13C3 PFHxS	N/A	N/A	7.48	7.49	17		08/05/2022 06:11
13C2 6:2FTS	N/A	N/A	6.72	6.74	11		08/05/2022 06:11
13C8 PFOA	N/A	N/A	7.05	7.07	23		08/05/2022 06:11
13C9 PFNA	N/A	N/A	7.71	7.72	19		08/05/2022 06:11
13C8 PFOS	N/A	N/A	8.88	8.88	16		08/05/2022 06:11
13C2 8:2FTS	N/A	N/A	8.00	8.01	24		08/05/2022 06:11
13C6 PFDA	N/A	N/A	8.38	8.39	16		08/05/2022 06:11
d3-MeFOSAA	N/A	N/A	8.24	8.25	21		08/05/2022 06:11
13C8 PFOSA	N/A	N/A	10.62	10.61	12		08/05/2022 06:11
d5-EtFOSAA	N/A	N/A	8.53	8.54	11		08/05/2022 06:11
13C7 PFUdA	N/A	N/A	9.06	9.07	16		08/05/2022 06:11
13C2 PFDoA	N/A	N/A	9.74	9.74	13		08/05/2022 06:11
13C2 PFTeDA	N/A	N/A	11.05	11.07	14		08/05/2022 06:11
13C3 HFPO-DA	N/A	N/A	6.04	6.06	15		08/05/2022 06:11
d7-N-MeFOSE	N/A	N/A	12.45	12.45	47	R	08/05/2022 06:11
d9-N-EtFOSE	N/A	N/A	12.92	12.92	14	R	08/05/2022 06:11
d3-N-MeFOSA	N/A	N/A	12.66	12.66	20	R	08/05/2022 06:11
d5-N-EtFOSA	N/A	N/A	13.08	13.08	78	R	08/05/2022 06:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK20-HA01(0-6)
 Lab Sample ID 10616212020
 Lab File ID B220804B_017
 Matrix Soil
 Collected 07/05/2022 15:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.10g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	16		08/05/2022 06:11
PFPeA	N/A	N/A	5.14	5.15	75		08/05/2022 06:11
HFPO-DA	0.00	0.25	0.00	6.07	ND		08/05/2022 06:11
PFBS	0.44	0.43	6.04	6.06	ND		08/05/2022 06:11
PFHxA	0.08	0.08	5.79	5.81	29		08/05/2022 06:11
4:2 FTS	0.00	0.88	0.00	5.54	ND		08/05/2022 06:11
PFPeS	0.37	0.44	6.77	6.79	ND		08/05/2022 06:11
PFHpA	0.34	0.25	6.42	6.44	22		08/05/2022 06:11
DONA	0.00	0.58	0.00	6.67	ND		08/05/2022 06:11
PFHxS	0.37	0.40	7.48	7.49	65	J	08/05/2022 06:11
PFOA	0.38	0.45	7.06	7.08	19		08/05/2022 06:11
6:2 FTS	0.80	0.79	6.72	6.74	51		08/05/2022 06:11
PFHpS	0.36	0.37	8.20	8.20	ND		08/05/2022 06:11
PFNA	0.15	0.13	7.71	7.73	42		08/05/2022 06:11
PFOSAm	N/A	N/A	10.63	10.61	ND		08/05/2022 06:11
PFOS	0.42	0.41	8.89	8.90	62		08/05/2022 06:11
MeFOSA	0.00	0.58	0.00	12.69	ND		08/05/2022 06:11
PFDA	0.15	0.19	8.39	8.40	48		08/05/2022 06:11
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/05/2022 06:11
8:2 FTS	0.89	0.84	8.00	8.02	10		08/05/2022 06:11
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/05/2022 06:11
PFNS	0.35	0.45	9.56	9.58	ND		08/05/2022 06:11
PFUnDA	0.13	0.12	9.07	9.08	15	J	08/05/2022 06:11
NMeFOSAA	0.00	0.91	0.00	8.26	ND		08/05/2022 06:11
NEtFOSAA	0.00	0.61	0.00	8.55	ND		08/05/2022 06:11
PFDS	0.00	0.36	0.00	10.24	ND		08/05/2022 06:11
PFDOA	0.19	0.17	9.74	9.75	ND		08/05/2022 06:11
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 06:11
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 06:11
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 06:11
PFTTrDA	0.17	0.15	10.40	10.42	ND		08/05/2022 06:11
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 06:11
PFTDA	0.22	0.24	11.05	11.07	ND		08/05/2022 06:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK21-HA01(0-6)
 Lab Sample ID 10616212021
 Lab File ID B220804B_018
 Matrix Soil
 Collected 07/06/2022 09:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.42g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.093	0.092	0.026	0.026	1	375-22-4		08/05/2022 06:31
PFPeA	0.24	0.092	0.026	0.026	1	2706-90-3		08/05/2022 06:31
HFPO-DA	ND	0.092	0.026	0.026	1	13252-13-6		08/05/2022 06:31
PFBS	ND	0.082	0.024	0.024	1	375-73-5		08/05/2022 06:31
PFHxA	0.13	0.092	0.025	0.025	1	307-24-4		08/05/2022 06:31
4:2 FTS	ND	0.086	0.021	0.021	1	757124-72-4		08/05/2022 06:31
PFPeS	ND	0.087	0.022	0.022	1	2706-91-4		08/05/2022 06:31
PFHpA	0.13	0.092	0.032	0.032	1	375-85-9		08/05/2022 06:31
DONA	ND	0.087	0.033	0.033	1	919005-14-4		08/05/2022 06:31
PFHxS	0.035 J	0.084	0.020	0.020	1	355-46-4		08/05/2022 06:31
PFOA	0.18	0.092	0.029	0.029	1	335-67-1		08/05/2022 06:31
6:2 FTS	0.052 J	0.088	0.038	0.038	1	27619-97-2		08/05/2022 06:31
PFHpS	ND	0.088	0.026	0.026	1	375-92-8		08/05/2022 06:31
PFNA	0.19	0.092	0.029	0.029	1	375-95-1		08/05/2022 06:31
PFOSAm	ND	0.092	0.027	0.027	1	754-91-6		08/05/2022 06:31
PFOS	0.69	0.085	0.027	0.027	1	1763-23-1		08/05/2022 06:31
MeFOSA	ND	0.092	0.025	0.025	1	31506-32-8		08/05/2022 06:31
PFDA	0.62	0.092	0.021	0.021	1	335-76-2		08/05/2022 06:31
EtFOSAm	ND	0.092	0.024	0.024	1	4151-50-2		08/05/2022 06:31
8:2 FTS	0.28	0.089	0.041	0.041	1	39108-34-4		08/05/2022 06:31
9-CI-PF3ON	ND	0.086	0.023	0.023	1	756426-58-1		08/05/2022 06:31
PFNS	ND	0.089	0.032	0.032	1	68259-12-1		08/05/2022 06:31
PFUnDA	0.48	0.092	0.028	0.028	1	2058-94-8		08/05/2022 06:31
NMeFOSAA	ND	0.092	0.026	0.026	1	2355-31-9		08/05/2022 06:31
NEtFOSAA	ND	0.092	0.037	0.037	1	2991-50-6		08/05/2022 06:31
PFDS	ND	0.089	0.026	0.026	1	335-77-3		08/05/2022 06:31
PFDOA	0.22	0.092	0.030	0.030	1	307-55-1		08/05/2022 06:31
MeFOSE	ND	0.092	0.028	0.028	1	24448-09-7		08/05/2022 06:31
EtFOSE	ND	0.092	0.030	0.030	1	1691-99-2		08/05/2022 06:31
11-CI-PF3OUdS	ND	0.087	0.023	0.023	1	763051-92-9		08/05/2022 06:31
PFTTrDA	0.041 J	0.092	0.029	0.029	1	72629-94-8		08/05/2022 06:31
PFDoS	ND	0.089	0.024	0.024	1	79780-39-5		08/05/2022 06:31
PFTDA	0.042 J	0.092	0.032	0.032	1	376-06-7		08/05/2022 06:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK21-HA01(0-6)
 Lab Sample ID 10616212021
 Lab File ID B220804B_018
 Matrix Soil
 Collected 07/06/2022 09:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.42g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.92	1.2	126	50-150		08/05/2022 06:31
13C4 PFOA	0.92	1.0	113	50-150		08/05/2022 06:31
13C2 PFDA	0.92	1.2	126	50-150		08/05/2022 06:31
13C4 PFOS	0.88	1.1	129	50-150		08/05/2022 06:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.92	0.82	89	25-150		08/05/2022 06:31
13C5 PFPeA	0.92	0.80	86	25-150		08/05/2022 06:31
13C3 PFBS	0.86	0.84	98	25-150		08/05/2022 06:31
13C2 4:2FTS	0.86	0.94	109	25-150		08/05/2022 06:31
13C5 PFHxA	0.92	0.84	91	25-150		08/05/2022 06:31
13C4 PFHpA	0.92	0.89	96	25-150		08/05/2022 06:31
13C3 PFHxS	0.87	0.79	90	25-150		08/05/2022 06:31
13C2 6:2FTS	0.88	1.00	114	25-150		08/05/2022 06:31
13C8 PFOA	0.92	0.87	95	25-150		08/05/2022 06:31
13C9 PFNA	0.92	0.99	107	25-150		08/05/2022 06:31
13C8 PFOS	0.88	0.89	101	25-150		08/05/2022 06:31
13C2 8:2FTS	0.88	1.3	142	25-150		08/05/2022 06:31
13C6 PFDA	0.92	1.1	117	25-150		08/05/2022 06:31
d3-MeFOSAA	0.92	0.87	95	25-150		08/05/2022 06:31
13C8 PFOSA	0.92	0.71	77	25-150		08/05/2022 06:31
d5-EtFOSAA	0.92	0.98	106	25-150		08/05/2022 06:31
13C7 PFUdA	0.92	1.3	146	25-150		08/05/2022 06:31
13C2 PFDoA	0.92	1.1	120	25-150		08/05/2022 06:31
13C2 PFTeDA	0.92	0.84	91	25-150		08/05/2022 06:31
13C3 HFPO-DA	0.92	0.89	96	25-150		08/05/2022 06:31
d7-N-MeFOSE	0.92	0.26	29	10-150		08/05/2022 06:31
d9-N-EtFOSE	0.92	0.39	42	10-150		08/05/2022 06:31
d3-N-MeFOSA	0.92	0.048	5	10-150	R	08/05/2022 06:31
d5-N-EtFOSA	0.92	0.065	7	10-150	R	08/05/2022 06:31

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 Lab Sample ID 10616212021
 Lab File ID B220804B_018
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 Received 07/08/2022 18:45
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Total Amount Extracted 5.42g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.78	5.80	18		08/05/2022 06:31
13C4 PFOA	N/A	N/A	7.05	7.07	16		08/05/2022 06:31
13C2 PFDA	N/A	N/A	8.38	8.39	17		08/05/2022 06:31
13C4 PFOS	N/A	N/A	8.87	8.88	98		08/05/2022 06:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	24		08/05/2022 06:31
13C5 PFPeA	N/A	N/A	5.14	5.15	22		08/05/2022 06:31
13C3 PFBS	N/A	N/A	6.04	6.05	10		08/05/2022 06:31
13C2 4:2FTS	N/A	N/A	5.53	5.54	40		08/05/2022 06:31
13C5 PFHxA	N/A	N/A	5.79	5.80	16		08/05/2022 06:31
13C4 PFHpA	N/A	N/A	6.42	6.43	19		08/05/2022 06:31
13C3 PFHxS	N/A	N/A	7.47	7.49	13		08/05/2022 06:31
13C2 6:2FTS	N/A	N/A	6.72	6.74	58		08/05/2022 06:31
13C8 PFOA	N/A	N/A	7.05	7.07	21		08/05/2022 06:31
13C9 PFNA	N/A	N/A	7.70	7.72	18		08/05/2022 06:31
13C8 PFOS	N/A	N/A	8.87	8.88	79		08/05/2022 06:31
13C2 8:2FTS	N/A	N/A	7.99	8.01	76		08/05/2022 06:31
13C6 PFDA	N/A	N/A	8.38	8.39	16		08/05/2022 06:31
d3-MeFOSAA	N/A	N/A	8.24	8.25	14		08/05/2022 06:31
13C8 PFOSA	N/A	N/A	10.62	10.61	13		08/05/2022 06:31
d5-EtFOSAA	N/A	N/A	8.53	8.54	15		08/05/2022 06:31
13C7 PFUdA	N/A	N/A	9.05	9.07	15		08/05/2022 06:31
13C2 PFDoA	N/A	N/A	9.73	9.74	11		08/05/2022 06:31
13C2 PFTeDA	N/A	N/A	11.05	11.07	11		08/05/2022 06:31
13C3 HFPO-DA	N/A	N/A	6.04	6.06	15		08/05/2022 06:31
d7-N-MeFOSE	N/A	N/A	12.45	12.45	68		08/05/2022 06:31
d9-N-EtFOSE	N/A	N/A	12.92	12.92	17		08/05/2022 06:31
d3-N-MeFOSA	N/A	N/A	12.67	12.66	30	R	08/05/2022 06:31
d5-N-EtFOSA	N/A	N/A	13.08	13.08	27	R	08/05/2022 06:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK21-HA01(0-6)
 Lab Sample ID 10616212021
 Lab File ID B220804B_018
 Matrix Soil
 Collected 07/06/2022 09:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.42g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	90		08/05/2022 06:31
PFPeA	N/A	N/A	5.14	5.15	22		08/05/2022 06:31
HFPO-DA	0.00	0.25	0.00	6.07	ND		08/05/2022 06:31
PFBS	0.30	0.43	6.04	6.06	ND		08/05/2022 06:31
PFHxA	0.08	0.08	5.80	5.81	15		08/05/2022 06:31
4:2 FTS	0.00	0.88	0.00	5.54	ND		08/05/2022 06:31
PFPeS	0.42	0.44	6.77	6.79	ND		08/05/2022 06:31
PFHpA	0.32	0.25	6.42	6.44	28		08/05/2022 06:31
DONA	0.00	0.58	0.00	6.67	ND		08/05/2022 06:31
PFHxS	0.41	0.40	7.48	7.49	20	J	08/05/2022 06:31
PFOA	0.38	0.45	7.06	7.08	14		08/05/2022 06:31
6:2 FTS	0.97	0.79	6.72	6.74	29	J	08/05/2022 06:31
PFHpS	0.00	0.37	0.00	8.20	ND		08/05/2022 06:31
PFNA	0.14	0.13	7.71	7.73	35		08/05/2022 06:31
PFOSAm	N/A	N/A	10.63	10.61	ND		08/05/2022 06:31
PFOS	0.38	0.41	8.88	8.90	53		08/05/2022 06:31
MeFOSA	0.00	0.58	0.00	12.69	ND		08/05/2022 06:31
PFDA	0.20	0.19	8.39	8.40	44		08/05/2022 06:31
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/05/2022 06:31
8:2 FTS	0.87	0.84	8.00	8.02	99		08/05/2022 06:31
9-Cl-PF3ON	0.00	0.05	0.00	9.39	ND		08/05/2022 06:31
PFNS	0.61	0.45	9.56	9.58	ND		08/05/2022 06:31
PFUnDA	0.14	0.12	9.06	9.08	42		08/05/2022 06:31
NMeFOSAA	0.90	0.91	8.23	8.26	ND		08/05/2022 06:31
NEtFOSAA	0.00	0.61	0.00	8.55	ND		08/05/2022 06:31
PFDS	0.36	0.36	10.23	10.24	ND		08/05/2022 06:31
PFDOA	0.21	0.17	9.74	9.75	45		08/05/2022 06:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 06:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 06:31
11-Cl-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 06:31
PFTTrDA	0.17	0.15	10.41	10.42	78	J	08/05/2022 06:31
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 06:31
PFTDA	0.32	0.24	11.05	11.07	12	J	08/05/2022 06:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK22-HA01(0-6)
 Lab Sample ID 10616212022
 Lab File ID B220804B_019
 Matrix Soil
 Collected 07/05/2022 15:40
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.31g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.24	0.094	0.027	0.027	1	375-22-4		08/05/2022 06:51
PFPeA	0.49	0.094	0.027	0.027	1	2706-90-3		08/05/2022 06:51
HFPO-DA	ND	0.094	0.026	0.026	1	13252-13-6		08/05/2022 06:51
PFBS	ND	0.083	0.025	0.025	1	375-73-5		08/05/2022 06:51
PFHxA	0.27	0.094	0.026	0.026	1	307-24-4		08/05/2022 06:51
4:2 FTS	ND	0.088	0.022	0.022	1	757124-72-4		08/05/2022 06:51
PFPeS	ND	0.089	0.023	0.023	1	2706-91-4		08/05/2022 06:51
PFHpA	0.30	0.094	0.033	0.033	1	375-85-9		08/05/2022 06:51
DONA	ND	0.089	0.034	0.034	1	919005-14-4		08/05/2022 06:51
PFHxS	ND	0.086	0.021	0.021	1	355-46-4		08/05/2022 06:51
PFOA	0.33	0.094	0.029	0.029	1	335-67-1		08/05/2022 06:51
6:2 FTS	0.099	0.090	0.039	0.039	1	27619-97-2		08/05/2022 06:51
PFHpS	ND	0.090	0.026	0.026	1	375-92-8		08/05/2022 06:51
PFNA	0.26	0.094	0.029	0.029	1	375-95-1		08/05/2022 06:51
PFOSAm	ND	0.094	0.028	0.028	1	754-91-6		08/05/2022 06:51
PFOS	0.82	0.087	0.028	0.028	1	1763-23-1		08/05/2022 06:51
MeFOSA	ND	0.094	0.026	0.026	1	31506-32-8		08/05/2022 06:51
PFDA	0.74	0.094	0.021	0.021	1	335-76-2		08/05/2022 06:51
EtFOSAm	ND	0.094	0.024	0.024	1	4151-50-2		08/05/2022 06:51
8:2 FTS	1.3	0.090	0.041	0.041	1	39108-34-4		08/05/2022 06:51
9-CI-PF3ON	ND	0.088	0.024	0.024	1	756426-58-1		08/05/2022 06:51
PFNS	ND	0.090	0.033	0.033	1	68259-12-1		08/05/2022 06:51
PFUnDA	0.52	0.094	0.028	0.028	1	2058-94-8		08/05/2022 06:51
NMeFOSAA	ND	0.094	0.026	0.026	1	2355-31-9		08/05/2022 06:51
NEtFOSAA	ND	0.094	0.038	0.038	1	2991-50-6		08/05/2022 06:51
PFDS	ND	0.091	0.027	0.027	1	335-77-3		08/05/2022 06:51
PFDOA	0.24	0.094	0.031	0.031	1	307-55-1		08/05/2022 06:51
MeFOSE	ND	0.094	0.029	0.029	1	24448-09-7		08/05/2022 06:51
EtFOSE	ND	0.094	0.030	0.030	1	1691-99-2		08/05/2022 06:51
11-CI-PF3OUdS	ND	0.089	0.024	0.024	1	763051-92-9		08/05/2022 06:51
PFTTrDA	0.059 J	0.094	0.030	0.030	1	72629-94-8		08/05/2022 06:51
PFDoS	ND	0.091	0.025	0.025	1	79780-39-5		08/05/2022 06:51
PFTDA	ND	0.094	0.032	0.032	1	376-06-7		08/05/2022 06:51

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 PFAS by Isotope Dilution

Client Sample ID PR-TK22-HA01(0-6)
 Lab Sample ID 10616212022
 Lab File ID B220804B_019
 Matrix Soil
 Collected 07/05/2022 15:40
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.31g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.94	1.1	120	50-150		08/05/2022 06:51
13C4 PFOA	0.94	1.1	119	50-150		08/05/2022 06:51
13C2 PFDA	0.94	1.1	113	50-150		08/05/2022 06:51
13C4 PFOS	0.90	1.1	122	50-150		08/05/2022 06:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.94	0.80	84	25-150		08/05/2022 06:51
13C5 PFPeA	0.94	0.80	85	25-150		08/05/2022 06:51
13C3 PFBS	0.88	0.85	97	25-150		08/05/2022 06:51
13C2 4:2FTS	0.88	0.93	106	25-150		08/05/2022 06:51
13C5 PFHxA	0.94	0.80	85	25-150		08/05/2022 06:51
13C4 PFHpA	0.94	0.88	93	25-150		08/05/2022 06:51
13C3 PFHxS	0.89	0.78	88	25-150		08/05/2022 06:51
13C2 6:2FTS	0.89	0.87	97	25-150		08/05/2022 06:51
13C8 PFOA	0.94	0.82	87	25-150		08/05/2022 06:51
13C9 PFNA	0.94	0.94	99	25-150		08/05/2022 06:51
13C8 PFOS	0.90	0.87	96	25-150		08/05/2022 06:51
13C2 8:2FTS	0.90	1.2	131	25-150		08/05/2022 06:51
13C6 PFDA	0.94	0.86	91	25-150		08/05/2022 06:51
d3-MeFOSAA	0.94	0.95	101	25-150		08/05/2022 06:51
13C8 PFOSA	0.94	0.56	59	25-150		08/05/2022 06:51
d5-EtFOSAA	0.94	0.95	101	25-150		08/05/2022 06:51
13C7 PFUdA	0.94	1.2	130	25-150		08/05/2022 06:51
13C2 PFDoA	0.94	0.95	101	25-150		08/05/2022 06:51
13C2 PFTeDA	0.94	0.91	97	25-150		08/05/2022 06:51
13C3 HFPO-DA	0.94	0.88	93	25-150		08/05/2022 06:51
d7-N-MeFOSE	0.94	0.20	21	10-150		08/05/2022 06:51
d9-N-EtFOSE	0.94	0.31	33	10-150		08/05/2022 06:51
d3-N-MeFOSA	0.94	0.031	3	10-150	R	08/05/2022 06:51
d5-N-EtFOSA	0.94	0.050	5	10-150	R	08/05/2022 06:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK22-HA01(0-6)
 Lab Sample ID 10616212022
 Lab File ID B220804B_019
 Matrix Soil
 Collected 07/05/2022 15:40
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.31g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.78	5.80	20		08/05/2022 06:51
13C4 PFOA	N/A	N/A	7.05	7.07	22		08/05/2022 06:51
13C2 PFDA	N/A	N/A	8.37	8.39	11		08/05/2022 06:51
13C4 PFOS	N/A	N/A	8.86	8.88	10		08/05/2022 06:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	23		08/05/2022 06:51
13C5 PFPeA	N/A	N/A	5.13	5.15	21		08/05/2022 06:51
13C3 PFBS	N/A	N/A	6.04	6.05	11		08/05/2022 06:51
13C2 4:2FTS	N/A	N/A	5.52	5.54	51		08/05/2022 06:51
13C5 PFHxA	N/A	N/A	5.79	5.80	20		08/05/2022 06:51
13C4 PFHpA	N/A	N/A	6.41	6.43	15		08/05/2022 06:51
13C3 PFHxS	N/A	N/A	7.47	7.49	15		08/05/2022 06:51
13C2 6:2FTS	N/A	N/A	6.72	6.74	60		08/05/2022 06:51
13C8 PFOA	N/A	N/A	7.05	7.07	20		08/05/2022 06:51
13C9 PFNA	N/A	N/A	7.70	7.72	16		08/05/2022 06:51
13C8 PFOS	N/A	N/A	8.87	8.88	92		08/05/2022 06:51
13C2 8:2FTS	N/A	N/A	7.99	8.01	90		08/05/2022 06:51
13C6 PFDA	N/A	N/A	8.38	8.39	15		08/05/2022 06:51
d3-MeFOSAA	N/A	N/A	8.23	8.25	23		08/05/2022 06:51
13C8 PFOSA	N/A	N/A	10.62	10.61	14		08/05/2022 06:51
d5-EtFOSAA	N/A	N/A	8.53	8.54	17		08/05/2022 06:51
13C7 PFUdA	N/A	N/A	9.05	9.07	14		08/05/2022 06:51
13C2 PFDoA	N/A	N/A	9.72	9.74	98		08/05/2022 06:51
13C2 PFTeDA	N/A	N/A	11.05	11.07	13		08/05/2022 06:51
13C3 HFPO-DA	N/A	N/A	6.04	6.06	17		08/05/2022 06:51
d7-N-MeFOSE	N/A	N/A	12.45	12.45	62		08/05/2022 06:51
d9-N-EtFOSE	N/A	N/A	12.92	12.92	18		08/05/2022 06:51
d3-N-MeFOSA	N/A	N/A	12.67	12.66	29	R	08/05/2022 06:51
d5-N-EtFOSA	N/A	N/A	13.08	13.08	24	R	08/05/2022 06:51

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 Lab File ID B220804B_019
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 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.31g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	11		08/05/2022 06:51
PFPeA	N/A	N/A	5.14	5.15	34		08/05/2022 06:51
HFPO-DA	2.70	0.25	6.06	6.07	ND		08/05/2022 06:51
PFBS	0.36	0.43	6.03	6.06	ND		08/05/2022 06:51
PFHxA	0.07	0.08	5.79	5.81	17		08/05/2022 06:51
4:2 FTS	0.00	0.88	0.00	5.54	ND		08/05/2022 06:51
PFPeS	0.32	0.44	6.78	6.79	ND		08/05/2022 06:51
PFHpA	0.33	0.25	6.42	6.44	23		08/05/2022 06:51
DONA	0.00	0.58	0.00	6.67	ND		08/05/2022 06:51
PFHxS	0.45	0.40	7.48	7.49	ND		08/05/2022 06:51
PFOA	0.40	0.45	7.06	7.08	22		08/05/2022 06:51
6:2 FTS	0.84	0.79	6.72	6.74	28		08/05/2022 06:51
PFHpS	0.00	0.37	0.00	8.20	ND		08/05/2022 06:51
PFNA	0.14	0.13	7.71	7.73	32		08/05/2022 06:51
PFOSAm	N/A	N/A	10.62	10.61	ND		08/05/2022 06:51
PFOS	0.44	0.41	8.88	8.90	74		08/05/2022 06:51
MeFOSA	0.00	0.58	0.00	12.69	ND		08/05/2022 06:51
PFDA	0.19	0.19	8.38	8.40	46		08/05/2022 06:51
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/05/2022 06:51
8:2 FTS	0.74	0.84	8.00	8.02	17		08/05/2022 06:51
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/05/2022 06:51
PFNS	0.59	0.45	9.56	9.58	ND		08/05/2022 06:51
PFUnDA	0.13	0.12	9.05	9.08	26		08/05/2022 06:51
NMeFOSAA	1.30	0.91	8.22	8.26	ND		08/05/2022 06:51
NEtFOSAA	1.80	0.61	8.54	8.55	ND		08/05/2022 06:51
PFDS	0.36	0.36	10.23	10.24	ND		08/05/2022 06:51
PFDOA	0.16	0.17	9.73	9.75	31		08/05/2022 06:51
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 06:51
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 06:51
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 06:51
PFTTrDA	0.18	0.15	10.40	10.42	47	J	08/05/2022 06:51
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 06:51
PFTDA	0.30	0.24	11.06	11.07	ND		08/05/2022 06:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK23-HA01(0-6)
 Lab Sample ID 10616212023
 Lab File ID B220804B_020
 Matrix Soil
 Collected 07/05/2022 16:00
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.049 J	0.096	0.027	0.027	1	375-22-4		08/05/2022 07:11
PFPeA	0.17	0.096	0.027	0.027	1	2706-90-3		08/05/2022 07:11
HFPO-DA	ND	0.096	0.027	0.027	1	13252-13-6		08/05/2022 07:11
PFBS	ND	0.085	0.025	0.025	1	375-73-5		08/05/2022 07:11
PFHxA	0.11	0.096	0.026	0.026	1	307-24-4		08/05/2022 07:11
4:2 FTS	ND	0.090	0.022	0.022	1	757124-72-4		08/05/2022 07:11
PFPeS	ND	0.090	0.023	0.023	1	2706-91-4		08/05/2022 07:11
PFHpA	0.13	0.096	0.033	0.033	1	375-85-9		08/05/2022 07:11
DONA	ND	0.091	0.035	0.035	1	919005-14-4		08/05/2022 07:11
PFHxS	0.13	0.087	0.021	0.021	1	355-46-4		08/05/2022 07:11
PFOA	0.17	0.096	0.030	0.030	1	335-67-1		08/05/2022 07:11
6:2 FTS	ND	0.091	0.040	0.040	1	27619-97-2		08/05/2022 07:11
PFHpS	ND	0.091	0.027	0.027	1	375-92-8		08/05/2022 07:11
PFNA	0.17	0.096	0.030	0.030	1	375-95-1		08/05/2022 07:11
PFOSAm	ND	0.096	0.028	0.028	1	754-91-6		08/05/2022 07:11
PFOS	2.7	0.089	0.028	0.028	1	1763-23-1		08/05/2022 07:11
MeFOSA	ND	0.096	0.026	0.026	1	31506-32-8		08/05/2022 07:11
PFDA	0.50	0.096	0.022	0.022	1	335-76-2		08/05/2022 07:11
EtFOSAm	ND	0.096	0.025	0.025	1	4151-50-2		08/05/2022 07:11
8:2 FTS	0.35	0.092	0.042	0.042	1	39108-34-4		08/05/2022 07:11
9-CI-PF3ON	ND	0.089	0.024	0.024	1	756426-58-1		08/05/2022 07:11
PFNS	ND	0.092	0.033	0.033	1	68259-12-1		08/05/2022 07:11
PFUnDA	0.32	0.096	0.029	0.029	1	2058-94-8		08/05/2022 07:11
NMeFOSAA	ND	0.096	0.027	0.027	1	2355-31-9		08/05/2022 07:11
NEtFOSAA	ND	0.096	0.039	0.039	1	2991-50-6		08/05/2022 07:11
PFDS	ND	0.092	0.027	0.027	1	335-77-3		08/05/2022 07:11
PFDOA	0.14	0.096	0.032	0.032	1	307-55-1		08/05/2022 07:11
MeFOSE	ND	0.096	0.029	0.029	1	24448-09-7		08/05/2022 07:11
EtFOSE	ND	0.096	0.031	0.031	1	1691-99-2		08/05/2022 07:11
11-CI-PF3OUdS	ND	0.090	0.024	0.024	1	763051-92-9		08/05/2022 07:11
PFTTrDA	0.057 J	0.096	0.031	0.031	1	72629-94-8		08/05/2022 07:11
PFDoS	ND	0.093	0.025	0.025	1	79780-39-5		08/05/2022 07:11
PFTDA	ND	0.096	0.033	0.033	1	376-06-7		08/05/2022 07:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK23-HA01(0-6)
 Lab Sample ID 10616212023
 Lab File ID B220804B_020
 Matrix Soil
 Collected 07/05/2022 16:00
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.96	1.2	124	50-150		08/05/2022 07:11
13C4 PFOA	0.96	1.2	120	50-150		08/05/2022 07:11
13C2 PFDA	0.96	1.3	135	50-150		08/05/2022 07:11
13C4 PFOS	0.92	1.1	124	50-150		08/05/2022 07:11

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.96	0.84	88	25-150		08/05/2022 07:11
13C5 PFPeA	0.96	0.85	89	25-150		08/05/2022 07:11
13C3 PFBS	0.89	0.86	96	25-150		08/05/2022 07:11
13C2 4:2FTS	0.90	1.2	130	25-150		08/05/2022 07:11
13C5 PFHxA	0.96	0.88	92	25-150		08/05/2022 07:11
13C4 PFHpA	0.96	0.85	88	25-150		08/05/2022 07:11
13C3 PFHxS	0.91	0.81	89	25-150		08/05/2022 07:11
13C2 6:2FTS	0.91	1.3	148	25-150		08/05/2022 07:11
13C8 PFOA	0.96	1.0	106	25-150		08/05/2022 07:11
13C9 PFNA	0.96	1.1	113	25-150		08/05/2022 07:11
13C8 PFOS	0.92	0.88	96	25-150		08/05/2022 07:11
13C2 8:2FTS	0.92	1.7	181	25-150	R	08/05/2022 07:11
13C6 PFDA	0.96	0.96	100	25-150		08/05/2022 07:11
d3-MeFOSAA	0.96	1.0	106	25-150		08/05/2022 07:11
13C8 PFOSA	0.96	0.97	101	25-150		08/05/2022 07:11
d5-EtFOSAA	0.96	1.3	134	25-150		08/05/2022 07:11
13C7 PFUdA	0.96	1.5	152	25-150	R	08/05/2022 07:11
13C2 PFDoA	0.96	1.1	118	25-150		08/05/2022 07:11
13C2 PFTeDA	0.96	1.3	131	25-150		08/05/2022 07:11
13C3 HFPO-DA	0.96	0.90	93	25-150		08/05/2022 07:11
d7-N-MeFOSE	0.96	0.55	58	10-150		08/05/2022 07:11
d9-N-EtFOSE	0.96	0.75	78	10-150		08/05/2022 07:11
d3-N-MeFOSA	0.96	0.30	31	10-150		08/05/2022 07:11
d5-N-EtFOSA	0.96	0.29	30	10-150		08/05/2022 07:11

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Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.78	5.80	13		08/05/2022 07:11
13C4 PFOA	N/A	N/A	7.05	7.07	19		08/05/2022 07:11
13C2 PFDA	N/A	N/A	8.37	8.39	16		08/05/2022 07:11
13C4 PFOS	N/A	N/A	8.87	8.88	32		08/05/2022 07:11

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	22		08/05/2022 07:11
13C5 PFPeA	N/A	N/A	5.14	5.15	26		08/05/2022 07:11
13C3 PFBS	N/A	N/A	6.04	6.05	39		08/05/2022 07:11
13C2 4:2FTS	N/A	N/A	5.53	5.54	36		08/05/2022 07:11
13C5 PFHxA	N/A	N/A	5.79	5.80	12		08/05/2022 07:11
13C4 PFHpA	N/A	N/A	6.41	6.43	12		08/05/2022 07:11
13C3 PFHxS	N/A	N/A	7.47	7.49	55		08/05/2022 07:11
13C2 6:2FTS	N/A	N/A	6.71	6.74	30		08/05/2022 07:11
13C8 PFOA	N/A	N/A	7.05	7.07	21		08/05/2022 07:11
13C9 PFNA	N/A	N/A	7.70	7.72	19		08/05/2022 07:11
13C8 PFOS	N/A	N/A	8.87	8.88	26		08/05/2022 07:11
13C2 8:2FTS	N/A	N/A	7.99	8.01	38	R	08/05/2022 07:11
13C6 PFDA	N/A	N/A	8.38	8.39	18		08/05/2022 07:11
d3-MeFOSAA	N/A	N/A	8.24	8.25	10		08/05/2022 07:11
13C8 PFOSA	N/A	N/A	10.62	10.61	15		08/05/2022 07:11
d5-EtFOSAA	N/A	N/A	8.53	8.54	13		08/05/2022 07:11
13C7 PFUdA	N/A	N/A	9.05	9.07	19	R	08/05/2022 07:11
13C2 PFDoA	N/A	N/A	9.73	9.74	82		08/05/2022 07:11
13C2 PFTeDA	N/A	N/A	11.05	11.07	13		08/05/2022 07:11
13C3 HFPO-DA	N/A	N/A	6.04	6.06	16		08/05/2022 07:11
d7-N-MeFOSE	N/A	N/A	12.45	12.45	49		08/05/2022 07:11
d9-N-EtFOSE	N/A	N/A	12.92	12.92	16		08/05/2022 07:11
d3-N-MeFOSA	N/A	N/A	12.66	12.66	42		08/05/2022 07:11
d5-N-EtFOSA	N/A	N/A	13.08	13.08	39		08/05/2022 07:11

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Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	61	J	08/05/2022 07:11
PFPeA	N/A	N/A	5.14	5.15	16		08/05/2022 07:11
HFPO-DA	5.90	0.25	6.05	6.07	ND		08/05/2022 07:11
PFBS	0.31	0.43	6.04	6.06	ND		08/05/2022 07:11
PFHxA	0.07	0.08	5.79	5.81	57		08/05/2022 07:11
4:2 FTS	0.00	0.88	0.00	5.54	ND		08/05/2022 07:11
PFPeS	0.40	0.44	6.77	6.79	ND		08/05/2022 07:11
PFHpA	0.29	0.25	6.42	6.44	30		08/05/2022 07:11
DONA	0.00	0.58	0.00	6.67	ND		08/05/2022 07:11
PFHxS	0.37	0.40	7.48	7.49	12		08/05/2022 07:11
PFOA	0.43	0.45	7.05	7.08	10		08/05/2022 07:11
6:2 FTS	0.88	0.79	6.72	6.74	ND		08/05/2022 07:11
PFHpS	0.34	0.37	8.19	8.20	ND		08/05/2022 07:11
PFNA	0.15	0.13	7.71	7.73	91		08/05/2022 07:11
PFOSAm	N/A	N/A	10.63	10.61	ND		08/05/2022 07:11
PFOS	0.39	0.41	8.88	8.90	41		08/05/2022 07:11
MeFOSA	0.00	0.58	0.00	12.69	ND		08/05/2022 07:11
PFDA	0.18	0.19	8.38	8.40	21		08/05/2022 07:11
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/05/2022 07:11
8:2 FTS	0.82	0.84	8.00	8.02	19		08/05/2022 07:11
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/05/2022 07:11
PFNS	0.44	0.45	9.57	9.58	ND		08/05/2022 07:11
PFUnDA	0.14	0.12	9.06	9.08	10		08/05/2022 07:11
NMeFOSAA	1.40	0.91	8.25	8.26	ND		08/05/2022 07:11
NEtFOSAA	0.00	0.61	0.00	8.55	ND		08/05/2022 07:11
PFDS	0.43	0.36	10.23	10.24	ND		08/05/2022 07:11
PFDOA	0.19	0.17	9.74	9.75	14		08/05/2022 07:11
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 07:11
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 07:11
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 07:11
PFTTrDA	0.18	0.15	10.40	10.42	24	J	08/05/2022 07:11
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 07:11
PFTDA	0.30	0.24	11.06	11.07	ND		08/05/2022 07:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK24-HA01(0-6)
 Lab Sample ID 10616212024
 Lab File ID B220804B_021
 Matrix Soil
 Collected 07/05/2022 16:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.53g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.32	0.090	0.026	0.026	1	375-22-4		08/05/2022 07:31
PFPeA	1.2	0.090	0.026	0.026	1	2706-90-3		08/05/2022 07:31
HFPO-DA	ND	0.090	0.025	0.025	1	13252-13-6		08/05/2022 07:31
PFBS	ND	0.080	0.024	0.024	1	375-73-5		08/05/2022 07:31
PFHxA	0.49	0.090	0.025	0.025	1	307-24-4		08/05/2022 07:31
4:2 FTS	ND	0.085	0.021	0.021	1	757124-72-4		08/05/2022 07:31
PFPeS	ND	0.085	0.022	0.022	1	2706-91-4		08/05/2022 07:31
PFHpA	0.43	0.090	0.031	0.031	1	375-85-9		08/05/2022 07:31
DONA	ND	0.086	0.033	0.033	1	919005-14-4		08/05/2022 07:31
PFHxS	0.28	0.082	0.020	0.020	1	355-46-4		08/05/2022 07:31
PFOA	0.54	0.090	0.028	0.028	1	335-67-1		08/05/2022 07:31
6:2 FTS	0.091	0.086	0.037	0.037	1	27619-97-2		08/05/2022 07:31
PFHpS	0.044 J	0.086	0.025	0.025	1	375-92-8		08/05/2022 07:31
PFNA	0.38	0.090	0.028	0.028	1	375-95-1		08/05/2022 07:31
PFOSAm	0.33	0.090	0.027	0.027	1	754-91-6		08/05/2022 07:31
PFOS	18 D	0.84	0.27	0.27	10	1763-23-1		08/06/2022 01:11
MeFOSA	ND	0.090	0.025	0.025	1	31506-32-8		08/05/2022 07:31
PFDA	0.81	0.090	0.021	0.021	1	335-76-2		08/05/2022 07:31
EtFOSAm	ND	0.090	0.023	0.023	1	4151-50-2		08/05/2022 07:31
8:2 FTS	1.9	0.087	0.040	0.040	1	39108-34-4		08/05/2022 07:31
9-CI-PF3ON	ND	0.084	0.023	0.023	1	756426-58-1		08/05/2022 07:31
PFNS	0.15	0.087	0.031	0.031	1	68259-12-1		08/05/2022 07:31
PFUnDA	0.28	0.090	0.027	0.027	1	2058-94-8		08/05/2022 07:31
NMeFOSAA	ND	0.090	0.025	0.025	1	2355-31-9		08/05/2022 07:31
NEtFOSAA	ND	0.090	0.036	0.036	1	2991-50-6		08/05/2022 07:31
PFDS	0.060 J	0.087	0.026	0.026	1	335-77-3		08/05/2022 07:31
PFDOA	0.19	0.090	0.030	0.030	1	307-55-1		08/05/2022 07:31
MeFOSE	ND	0.090	0.027	0.027	1	24448-09-7		08/05/2022 07:31
EtFOSE	ND	0.090	0.029	0.029	1	1691-99-2		08/05/2022 07:31
11-CI-PF3OUdS	ND	0.085	0.023	0.023	1	763051-92-9		08/05/2022 07:31
PFTTrDA	0.059 J	0.090	0.029	0.029	1	72629-94-8		08/05/2022 07:31
PFDoS	ND	0.088	0.024	0.024	1	79780-39-5		08/05/2022 07:31
PFTDA	0.044 J	0.090	0.031	0.031	1	376-06-7		08/05/2022 07:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK24-HA01(0-6)
 Lab Sample ID 10616212024
 Lab File ID B220804B_021
 Matrix Soil
 Collected 07/05/2022 16:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.53g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.90	1.1	127	50-150		08/05/2022 07:31
13C4 PFOA	0.90	1.1	119	50-150		08/05/2022 07:31
13C2 PFDA	0.90	1.1	126	50-150		08/05/2022 07:31
13C4 PFOS	0.87	0.86	99	50-150		08/05/2022 07:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.90	0.72	80	25-150		08/05/2022 07:31
13C5 PFPeA	0.90	0.71	78	25-150		08/05/2022 07:31
13C3 PFBS	0.84	0.70	83	25-150		08/05/2022 07:31
13C2 4:2FTS	0.85	0.82	97	25-150		08/05/2022 07:31
13C5 PFHxA	0.90	0.80	88	25-150		08/05/2022 07:31
13C4 PFHpA	0.90	0.80	88	25-150		08/05/2022 07:31
13C3 PFHxS	0.86	0.74	87	25-150		08/05/2022 07:31
13C2 6:2FTS	0.86	0.76	88	25-150		08/05/2022 07:31
13C8 PFOA	0.90	0.74	82	25-150		08/05/2022 07:31
13C9 PFNA	0.90	0.82	91	25-150		08/05/2022 07:31
13C8 PFOS	0.87	0.87	101	25-150	D	08/06/2022 01:11
13C2 8:2FTS	0.87	1.0	116	25-150		08/05/2022 07:31
13C6 PFDA	0.90	0.83	91	25-150		08/05/2022 07:31
d3-MeFOSAA	0.90	0.79	87	25-150		08/05/2022 07:31
13C8 PFOSA	0.90	0.56	62	25-150		08/05/2022 07:31
d5-EtFOSAA	0.90	0.87	96	25-150		08/05/2022 07:31
13C7 PFUdA	0.90	1.3	141	25-150		08/05/2022 07:31
13C2 PFDoA	0.90	0.90	100	25-150		08/05/2022 07:31
13C2 PFTeDA	0.90	0.64	71	25-150		08/05/2022 07:31
13C3 HFPO-DA	0.90	0.73	81	25-150		08/05/2022 07:31
d7-N-MeFOSE	0.90	0.21	24	10-150		08/05/2022 07:31
d9-N-EtFOSE	0.90	0.20	22	10-150		08/05/2022 07:31
d3-N-MeFOSA	0.90	0.018	2	10-150	R	08/05/2022 07:31
d5-N-EtFOSA	0.90	0.023	3	10-150	R	08/05/2022 07:31

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Sample Analysis Summary
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Client Sample ID PR-TK24-HA01(0-6)
 Lab Sample ID 10616212024
 Lab File ID B220804B_021
 Matrix Soil
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 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.53g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.78	5.80	20		08/05/2022 07:31
13C4 PFOA	N/A	N/A	7.05	7.07	17		08/05/2022 07:31
13C2 PFDA	N/A	N/A	8.37	8.39	17		08/05/2022 07:31
13C4 PFOS	N/A	N/A	8.87	8.88	91		08/05/2022 07:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	22		08/05/2022 07:31
13C5 PFPeA	N/A	N/A	5.13	5.15	24		08/05/2022 07:31
13C3 PFBS	N/A	N/A	6.04	6.05	12		08/05/2022 07:31
13C2 4:2FTS	N/A	N/A	5.52	5.54	43		08/05/2022 07:31
13C5 PFHxA	N/A	N/A	5.78	5.80	21		08/05/2022 07:31
13C4 PFHpA	N/A	N/A	6.41	6.43	13		08/05/2022 07:31
13C3 PFHxS	N/A	N/A	7.47	7.49	14		08/05/2022 07:31
13C2 6:2FTS	N/A	N/A	6.72	6.74	60		08/05/2022 07:31
13C8 PFOA	N/A	N/A	7.05	7.07	16		08/05/2022 07:31
13C9 PFNA	N/A	N/A	7.70	7.72	18		08/05/2022 07:31
13C8 PFOS	N/A	N/A	8.90	8.88	78	D	08/06/2022 01:11
13C2 8:2FTS	N/A	N/A	7.99	8.01	97		08/05/2022 07:31
13C6 PFDA	N/A	N/A	8.38	8.39	21		08/05/2022 07:31
d3-MeFOSAA	N/A	N/A	8.23	8.25	21		08/05/2022 07:31
13C8 PFOSA	N/A	N/A	10.62	10.61	13		08/05/2022 07:31
d5-EtFOSAA	N/A	N/A	8.53	8.54	19		08/05/2022 07:31
13C7 PFUdA	N/A	N/A	9.05	9.07	19		08/05/2022 07:31
13C2 PFDoA	N/A	N/A	9.73	9.74	74		08/05/2022 07:31
13C2 PFTeDA	N/A	N/A	11.05	11.07	13		08/05/2022 07:31
13C3 HFPO-DA	N/A	N/A	6.04	6.06	14		08/05/2022 07:31
d7-N-MeFOSE	N/A	N/A	12.45	12.45	50		08/05/2022 07:31
d9-N-EtFOSE	N/A	N/A	12.92	12.92	17		08/05/2022 07:31
d3-N-MeFOSA	N/A	N/A	12.66	12.66	19	R	08/05/2022 07:31
d5-N-EtFOSA	N/A	N/A	13.08	13.08	16	R	08/05/2022 07:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK24-HA01(0-6)
 Lab Sample ID 10616212024
 Lab File ID B220804B_021
 Matrix Soil
 Collected 07/05/2022 16:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.53g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	16		08/05/2022 07:31
PFPeA	N/A	N/A	5.14	5.15	51		08/05/2022 07:31
HFPO-DA	5.20	0.25	6.05	6.07	ND		08/05/2022 07:31
PFBS	0.39	0.43	6.04	6.06	ND		08/05/2022 07:31
PFHxA	0.08	0.08	5.79	5.81	22		08/05/2022 07:31
4:2 FTS	0.00	0.88	0.00	5.54	ND		08/05/2022 07:31
PFPeS	0.50	0.44	6.77	6.79	ND		08/05/2022 07:31
PFHpA	0.29	0.25	6.42	6.44	22		08/05/2022 07:31
DONA	0.00	0.58	0.00	6.67	ND		08/05/2022 07:31
PFHxS	0.39	0.40	7.48	7.49	54		08/05/2022 07:31
PFOA	0.39	0.45	7.06	7.08	20		08/05/2022 07:31
6:2 FTS	0.80	0.79	6.72	6.74	33		08/05/2022 07:31
PFHpS	0.36	0.37	8.19	8.20	15	J	08/05/2022 07:31
PFNA	0.15	0.13	7.71	7.73	39		08/05/2022 07:31
PFOSAm	N/A	N/A	10.63	10.61	56		08/05/2022 07:31
PFOS	0.49	0.42	8.91	8.90	97	D	08/06/2022 01:11
MeFOSA	0.00	0.58	0.00	12.69	ND		08/05/2022 07:31
PFDA	0.20	0.19	8.39	8.40	40		08/05/2022 07:31
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/05/2022 07:31
8:2 FTS	0.84	0.84	8.00	8.02	13		08/05/2022 07:31
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/05/2022 07:31
PFNS	0.50	0.45	9.56	9.58	15		08/05/2022 07:31
PFUnDA	0.16	0.12	9.06	9.08	99		08/05/2022 07:31
NMeFOSAA	0.73	0.91	8.24	8.26	ND		08/05/2022 07:31
NEtFOSAA	0.00	0.61	0.00	8.55	ND		08/05/2022 07:31
PFDS	0.40	0.36	10.23	10.24	11	J	08/05/2022 07:31
PFDOA	0.20	0.17	9.73	9.75	15		08/05/2022 07:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 07:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 07:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 07:31
PFTTrDA	0.20	0.15	10.40	10.42	9	J	08/05/2022 07:31
PFDoS	0.60	0.49	11.47	11.48	ND		08/05/2022 07:31
PFTDA	0.29	0.24	11.05	11.07	41	J	08/05/2022 07:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK25-HA01(0-6)
 Lab Sample ID 10616212025
 Lab File ID B220804B_022
 Matrix Soil
 Collected 07/06/2022 13:05
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.66g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.41	0.088	0.025	0.025	1	375-22-4		08/05/2022 07:51
PFPeA	1.7	0.088	0.025	0.025	1	2706-90-3		08/05/2022 07:51
HFPO-DA	ND	0.088	0.025	0.025	1	13252-13-6		08/05/2022 07:51
PFBS	0.077 J	0.078	0.023	0.023	1	375-73-5		08/05/2022 07:51
PFHxA	1.1	0.088	0.024	0.024	1	307-24-4		08/05/2022 07:51
4:2 FTS	ND	0.083	0.020	0.020	1	757124-72-4		08/05/2022 07:51
PFPeS	0.16	0.083	0.021	0.021	1	2706-91-4		08/05/2022 07:51
PFHpA	0.34	0.088	0.031	0.031	1	375-85-9		08/05/2022 07:51
DONA	ND	0.083	0.032	0.032	1	919005-14-4		08/05/2022 07:51
PFHxS	1.9	0.080	0.019	0.019	1	355-46-4		08/05/2022 07:51
PFOA	0.57	0.088	0.027	0.027	1	335-67-1		08/05/2022 07:51
6:2 FTS	9.2 D	1.7	0.73	0.73	20	27619-97-2		08/06/2022 01:31
PFHpS	0.32	0.084	0.025	0.025	1	375-92-8		08/05/2022 07:51
PFNA	0.36	0.088	0.027	0.027	1	375-95-1		08/05/2022 07:51
PFOSAm	1.4	0.088	0.026	0.026	1	754-91-6		08/05/2022 07:51
PFOS	45 D	1.6	0.52	0.52	20	1763-23-1		08/06/2022 01:31
MeFOSA	ND	0.088	0.024	0.024	1	31506-32-8		08/05/2022 07:51
PFDA	1.4	0.088	0.020	0.020	1	335-76-2		08/05/2022 07:51
EtFOSAm	ND	0.088	0.023	0.023	1	4151-50-2		08/05/2022 07:51
8:2 FTS	12 D	1.7	0.78	0.78	20	39108-34-4		08/06/2022 01:31
9-CI-PF3ON	ND	0.082	0.022	0.022	1	756426-58-1		08/05/2022 07:51
PFNS	0.40	0.085	0.031	0.031	1	68259-12-1		08/05/2022 07:51
PFUnDA	1.0	0.088	0.027	0.027	1	2058-94-8		08/05/2022 07:51
NMeFOSAA	0.10	0.088	0.025	0.025	1	2355-31-9		08/05/2022 07:51
NEtFOSAA	0.12	0.088	0.036	0.036	1	2991-50-6		08/05/2022 07:51
PFDS	0.64	0.085	0.025	0.025	1	335-77-3		08/05/2022 07:51
PFDOA	1.5	0.088	0.029	0.029	1	307-55-1		08/05/2022 07:51
MeFOSE	ND	0.088	0.027	0.027	1	24448-09-7		08/05/2022 07:51
EtFOSE	0.069 J	0.088	0.028	0.028	1	1691-99-2		08/05/2022 07:51
11-CI-PF3OUdS	ND	0.083	0.022	0.022	1	763051-92-9		08/05/2022 07:51
PFTTrDA	0.33	0.088	0.028	0.028	1	72629-94-8		08/05/2022 07:51
PFDoS	0.055 J	0.085	0.023	0.023	1	79780-39-5		08/05/2022 07:51
PFTDA	0.72	0.088	0.030	0.030	1	376-06-7		08/05/2022 07:51

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 Lab Sample ID 10616212025
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 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.66g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.88	1.1	125	50-150		08/05/2022 07:51
13C4 PFOA	0.88	0.97	110	50-150		08/05/2022 07:51
13C2 PFDA	0.88	1.1	127	50-150		08/05/2022 07:51
13C4 PFOS	0.85	0.70	83	50-150		08/05/2022 07:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.88	0.76	86	25-150		08/05/2022 07:51
13C5 PFPeA	0.88	0.74	84	25-150		08/05/2022 07:51
13C3 PFBS	0.82	0.77	94	25-150		08/05/2022 07:51
13C2 4:2FTS	0.83	0.77	93	25-150		08/05/2022 07:51
13C5 PFHxA	0.88	0.78	89	25-150		08/05/2022 07:51
13C4 PFHpA	0.88	0.75	85	25-150		08/05/2022 07:51
13C3 PFHxS	0.84	0.68	82	25-150		08/05/2022 07:51
13C2 6:2FTS	0.84	0.87	103	25-150	D	08/06/2022 01:31
13C8 PFOA	0.88	0.74	84	25-150		08/05/2022 07:51
13C9 PFNA	0.88	0.69	78	25-150		08/05/2022 07:51
13C8 PFOS	0.85	0.85	100	25-150	D	08/06/2022 01:31
13C2 8:2FTS	0.85	0.91	107	25-150	D	08/06/2022 01:31
13C6 PFDA	0.88	0.73	83	25-150		08/05/2022 07:51
d3-MeFOSAA	0.88	0.72	81	25-150		08/05/2022 07:51
13C8 PFOSA	0.88	0.68	77	25-150		08/05/2022 07:51
d5-EtFOSAA	0.88	0.74	84	25-150		08/05/2022 07:51
13C7 PFUdA	0.88	1.0	116	25-150		08/05/2022 07:51
13C2 PFDoA	0.88	0.65	74	25-150		08/05/2022 07:51
13C2 PFTeDA	0.88	0.27	30	25-150		08/05/2022 07:51
13C3 HFPO-DA	0.88	0.77	87	25-150		08/05/2022 07:51
d7-N-MeFOSE	0.88	0.44	50	10-150		08/05/2022 07:51
d9-N-EtFOSE	0.88	0.36	41	10-150		08/05/2022 07:51
d3-N-MeFOSA	0.88	0.040	5	10-150	R	08/05/2022 07:51
d5-N-EtFOSA	0.88	0.025	3	10-150	R	08/05/2022 07:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK25-HA01(0-6)
 Lab Sample ID 10616212025
 Lab File ID B220804B_022
 Matrix Soil
 Collected 07/06/2022 13:05
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.66g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.78	5.80	18		08/05/2022 07:51
13C4 PFOA	N/A	N/A	7.05	7.07	17		08/05/2022 07:51
13C2 PFDA	N/A	N/A	8.37	8.39	16		08/05/2022 07:51
13C4 PFOS	N/A	N/A	8.87	8.88	10		08/05/2022 07:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	22		08/05/2022 07:51
13C5 PFPeA	N/A	N/A	5.13	5.15	25		08/05/2022 07:51
13C3 PFBS	N/A	N/A	6.03	6.05	15		08/05/2022 07:51
13C2 4:2FTS	N/A	N/A	5.52	5.54	80		08/05/2022 07:51
13C5 PFHxA	N/A	N/A	5.78	5.80	14		08/05/2022 07:51
13C4 PFHpA	N/A	N/A	6.41	6.43	14		08/05/2022 07:51
13C3 PFHxS	N/A	N/A	7.47	7.49	17		08/05/2022 07:51
13C2 6:2FTS	N/A	N/A	6.74	6.74	88	D	08/06/2022 01:31
13C8 PFOA	N/A	N/A	7.05	7.07	17		08/05/2022 07:51
13C9 PFNA	N/A	N/A	7.71	7.72	16		08/05/2022 07:51
13C8 PFOS	N/A	N/A	8.90	8.88	85	D	08/06/2022 01:31
13C2 8:2FTS	N/A	N/A	8.01	8.01	11	D	08/06/2022 01:31
13C6 PFDA	N/A	N/A	8.38	8.39	18		08/05/2022 07:51
d3-MeFOSAA	N/A	N/A	8.24	8.25	16		08/05/2022 07:51
13C8 PFOSA	N/A	N/A	10.62	10.61	97		08/05/2022 07:51
d5-EtFOSAA	N/A	N/A	8.53	8.54	10		08/05/2022 07:51
13C7 PFUdA	N/A	N/A	9.05	9.07	18		08/05/2022 07:51
13C2 PFDoA	N/A	N/A	9.74	9.74	89		08/05/2022 07:51
13C2 PFTeDA	N/A	N/A	11.05	11.07	79		08/05/2022 07:51
13C3 HFPO-DA	N/A	N/A	6.04	6.06	16		08/05/2022 07:51
d7-N-MeFOSE	N/A	N/A	12.45	12.45	60		08/05/2022 07:51
d9-N-EtFOSE	N/A	N/A	12.92	12.92	24		08/05/2022 07:51
d3-N-MeFOSA	N/A	N/A	12.66	12.66	48	R	08/05/2022 07:51
d5-N-EtFOSA	N/A	N/A	13.08	13.08	26	R	08/05/2022 07:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK25-HA01(0-6)
 Lab Sample ID 10616212025
 Lab File ID B220804B_022
 Matrix Soil
 Collected 07/06/2022 13:05
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.66g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	20		08/05/2022 07:51
PFPeA	N/A	N/A	5.14	5.15	68		08/05/2022 07:51
HFPO-DA	1.60	0.25	6.05	6.07	ND		08/05/2022 07:51
PFBS	0.48	0.43	6.04	6.06	35	J	08/05/2022 07:51
PFHxA	0.08	0.08	5.79	5.81	44		08/05/2022 07:51
4:2 FTS	0.91	0.88	5.53	5.54	ND		08/05/2022 07:51
PFPeS	0.45	0.44	6.77	6.79	45		08/05/2022 07:51
PFHpA	0.32	0.25	6.42	6.44	21		08/05/2022 07:51
DONA	0.00	0.58	0.00	6.67	ND		08/05/2022 07:51
PFHxS	0.39	0.40	7.48	7.49	12		08/05/2022 07:51
PFOA	0.42	0.45	7.06	7.08	26		08/05/2022 07:51
6:2 FTS	0.87	0.87	6.74	6.74	10	D	08/06/2022 01:31
PFHpS	0.38	0.37	8.19	8.20	42		08/05/2022 07:51
PFNA	0.14	0.13	7.71	7.73	41		08/05/2022 07:51
PFOSAm	N/A	N/A	10.63	10.61	26		08/05/2022 07:51
PFOS	0.40	0.42	8.90	8.90	66	D	08/06/2022 01:31
MeFOSA	0.00	0.58	0.00	12.69	ND		08/05/2022 07:51
PFDA	0.18	0.19	8.39	8.40	71		08/05/2022 07:51
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/05/2022 07:51
8:2 FTS	0.81	0.78	8.02	8.02	10	D	08/06/2022 01:31
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/05/2022 07:51
PFNS	0.50	0.45	9.57	9.58	20		08/05/2022 07:51
PFUnDA	0.13	0.12	9.06	9.08	31		08/05/2022 07:51
NMeFOSAA	0.80	0.91	8.24	8.26	67		08/05/2022 07:51
NEtFOSAA	0.65	0.61	8.54	8.55	27		08/05/2022 07:51
PFDS	0.39	0.36	10.23	10.24	27		08/05/2022 07:51
PFDOA	0.19	0.17	9.74	9.75	51		08/05/2022 07:51
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 07:51
EtFOSE	0.00	0.00	12.96	12.96	69	J	08/05/2022 07:51
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 07:51
PFTTrDA	0.18	0.15	10.40	10.42	59		08/05/2022 07:51
PFDoS	0.52	0.49	11.47	11.48	11	J	08/05/2022 07:51
PFTDA	0.26	0.24	11.06	11.07	16		08/05/2022 07:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK26-HA01(0-6)
 Lab Sample ID 10616212026
 Lab File ID B220805B_011
 Matrix Soil
 Collected 07/06/2022 08:50
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.29g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.11	0.095	0.027	0.027	1	375-22-4		08/06/2022 00:31
PFPeA	0.42	0.095	0.027	0.027	1	2706-90-3		08/06/2022 00:31
HFPO-DA	ND	0.095	0.026	0.026	1	13252-13-6		08/06/2022 00:31
PFBS	ND	0.084	0.025	0.025	1	375-73-5		08/06/2022 00:31
PFHxA	0.20	0.095	0.026	0.026	1	307-24-4		08/06/2022 00:31
4:2 FTS	ND	0.088	0.022	0.022	1	757124-72-4		08/06/2022 00:31
PFPeS	0.033 J	0.089	0.023	0.023	1	2706-91-4		08/06/2022 00:31
PFHpA	0.098	0.095	0.033	0.033	1	375-85-9		08/06/2022 00:31
DONA	ND	0.089	0.034	0.034	1	919005-14-4		08/06/2022 00:31
PFHxS	0.33	0.086	0.021	0.021	1	355-46-4		08/06/2022 00:31
PFOA	0.16	0.095	0.029	0.029	1	335-67-1		08/06/2022 00:31
6:2 FTS	0.72	0.090	0.039	0.039	1	27619-97-2		08/06/2022 00:31
PFHpS	ND	0.090	0.026	0.026	1	375-92-8		08/06/2022 00:31
PFNA	0.13	0.095	0.029	0.029	1	375-95-1		08/06/2022 00:31
PFOSAm	ND	0.095	0.028	0.028	1	754-91-6		08/06/2022 00:31
PFOS	2.0	0.087	0.028	0.028	1	1763-23-1		08/06/2022 00:31
MeFOSA	ND	0.095	0.026	0.026	1	31506-32-8		08/06/2022 00:31
PFDA	0.52	0.095	0.022	0.022	1	335-76-2		08/06/2022 00:31
EtFOSAm	ND	0.095	0.024	0.024	1	4151-50-2		08/06/2022 00:31
8:2 FTS	0.12	0.091	0.042	0.042	1	39108-34-4		08/06/2022 00:31
9-CI-PF3ON	ND	0.088	0.024	0.024	1	756426-58-1		08/06/2022 00:31
PFNS	ND	0.091	0.033	0.033	1	68259-12-1		08/06/2022 00:31
PFUnDA	0.098	0.095	0.029	0.029	1	2058-94-8		08/06/2022 00:31
NMeFOSAA	ND	0.095	0.027	0.027	1	2355-31-9		08/06/2022 00:31
NEtFOSAA	ND	0.095	0.038	0.038	1	2991-50-6		08/06/2022 00:31
PFDS	ND	0.091	0.027	0.027	1	335-77-3		08/06/2022 00:31
PFDOA	0.037 J	0.095	0.031	0.031	1	307-55-1		08/06/2022 00:31
MeFOSE	ND	0.095	0.029	0.029	1	24448-09-7		08/06/2022 00:31
EtFOSE	ND	0.095	0.030	0.030	1	1691-99-2		08/06/2022 00:31
11-CI-PF3OUdS	ND	0.089	0.024	0.024	1	763051-92-9		08/06/2022 00:31
PFTTrDA	ND	0.095	0.030	0.030	1	72629-94-8		08/06/2022 00:31
PFDoS	ND	0.092	0.025	0.025	1	79780-39-5		08/06/2022 00:31
PFTDA	ND	0.095	0.032	0.032	1	376-06-7		08/06/2022 00:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK26-HA01(0-6)
 Lab Sample ID 10616212026
 Lab File ID B220805B_011
 Matrix Soil
 Collected 07/06/2022 08:50
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.29g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.95	1.2	128	50-150		08/06/2022 00:31
13C4 PFOA	0.95	1.3	137	50-150		08/06/2022 00:31
13C2 PFDA	0.95	1.3	139	50-150		08/06/2022 00:31
13C4 PFOS	0.91	1.3	140	50-150		08/06/2022 00:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.95	0.84	89	25-150		08/06/2022 00:31
13C5 PFPeA	0.95	0.88	93	25-150		08/06/2022 00:31
13C3 PFBS	0.88	0.73	83	25-150		08/06/2022 00:31
13C2 4:2FTS	0.88	0.74	84	25-150		08/06/2022 00:31
13C5 PFHxA	0.95	0.94	99	25-150		08/06/2022 00:31
13C4 PFHpA	0.95	0.92	98	25-150		08/06/2022 00:31
13C3 PFHxS	0.89	0.85	95	25-150		08/06/2022 00:31
13C2 6:2FTS	0.90	0.80	89	25-150		08/06/2022 00:31
13C8 PFOA	0.95	0.76	80	25-150		08/06/2022 00:31
13C9 PFNA	0.95	1.00	105	25-150		08/06/2022 00:31
13C8 PFOS	0.91	0.91	101	25-150		08/06/2022 00:31
13C2 8:2FTS	0.91	1.1	126	25-150		08/06/2022 00:31
13C6 PFDA	0.95	1.2	124	25-150		08/06/2022 00:31
d3-MeFOSAA	0.95	0.94	100	25-150		08/06/2022 00:31
13C8 PFOSA	0.95	0.42	44	25-150		08/06/2022 00:31
d5-EtFOSAA	0.95	0.90	95	25-150		08/06/2022 00:31
13C7 PFUdA	0.95	0.96	102	25-150		08/06/2022 00:31
13C2 PFDaA	0.95	1.1	113	25-150		08/06/2022 00:31
13C2 PFTeDA	0.95	0.93	98	25-150		08/06/2022 00:31
13C3 HFPO-DA	0.95	0.91	96	25-150		08/06/2022 00:31
d7-N-MeFOSE	0.95	0.030	3	10-150	R	08/06/2022 00:31
d9-N-EtFOSE	0.95	0.053	6	10-150	R	08/06/2022 00:31
d3-N-MeFOSA	0.95	0.0072	1	10-150	R	08/06/2022 00:31
d5-N-EtFOSA	0.95	0.014	1	10-150	R	08/06/2022 00:31

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Client Sample ID PR-TK26-HA01(0-6)
 Lab Sample ID 10616212026
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 Matrix Soil
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Total Amount Extracted 5.29g
 Ical ID 220803A02
 CCal File B220805B_003
 Ending CCal File B220805B_015
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.80	25		08/06/2022 00:31
13C4 PFOA	N/A	N/A	7.07	7.07	25		08/06/2022 00:31
13C2 PFDA	N/A	N/A	8.39	8.39	18		08/06/2022 00:31
13C4 PFOS	N/A	N/A	8.89	8.88	10		08/06/2022 00:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	25		08/06/2022 00:31
13C5 PFPeA	N/A	N/A	5.14	5.15	24		08/06/2022 00:31
13C3 PFBS	N/A	N/A	6.05	6.05	81		08/06/2022 00:31
13C2 4:2FTS	N/A	N/A	5.54	5.54	38		08/06/2022 00:31
13C5 PFHxA	N/A	N/A	5.80	5.80	19		08/06/2022 00:31
13C4 PFHpA	N/A	N/A	6.43	6.43	26		08/06/2022 00:31
13C3 PFHxS	N/A	N/A	7.49	7.49	11		08/06/2022 00:31
13C2 6:2FTS	N/A	N/A	6.74	6.74	66		08/06/2022 00:31
13C8 PFOA	N/A	N/A	7.07	7.07	24		08/06/2022 00:31
13C9 PFNA	N/A	N/A	7.72	7.72	22		08/06/2022 00:31
13C8 PFOS	N/A	N/A	8.89	8.88	10		08/06/2022 00:31
13C2 8:2FTS	N/A	N/A	8.01	8.01	11		08/06/2022 00:31
13C6 PFDA	N/A	N/A	8.40	8.39	17		08/06/2022 00:31
d3-MeFOSAA	N/A	N/A	8.25	8.25	29		08/06/2022 00:31
13C8 PFOSA	N/A	N/A	10.65	10.61	17		08/06/2022 00:31
d5-EtFOSAA	N/A	N/A	8.55	8.54	14		08/06/2022 00:31
13C7 PFUdA	N/A	N/A	9.08	9.07	25		08/06/2022 00:31
13C2 PFDoA	N/A	N/A	9.76	9.74	13		08/06/2022 00:31
13C2 PFTeDA	N/A	N/A	11.08	11.07	12		08/06/2022 00:31
13C3 HFPO-DA	N/A	N/A	6.06	6.06	20		08/06/2022 00:31
d7-N-MeFOSE	N/A	N/A	12.47	12.45	29	R	08/06/2022 00:31
d9-N-EtFOSE	N/A	N/A	12.93	12.92	14	R	08/06/2022 00:31
d3-N-MeFOSA	N/A	N/A	12.68	12.66	29	R	08/06/2022 00:31
d5-N-EtFOSA	N/A	N/A	13.09	13.08	16	R	08/06/2022 00:31

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 PFAS by Isotope Dilution

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Total Amount Extracted 5.29g
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 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.31	4.31	13		08/06/2022 00:31
PFPeA	N/A	N/A	5.15	5.15	35		08/06/2022 00:31
HFPO-DA	0.00	0.30	0.00	6.07	ND		08/06/2022 00:31
PFBS	0.40	0.48	6.05	6.06	ND		08/06/2022 00:31
PFHxA	0.09	0.08	5.81	5.81	16		08/06/2022 00:31
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/06/2022 00:31
PFPeS	0.47	0.43	6.79	6.79	13	J	08/06/2022 00:31
PFHpA	0.29	0.30	6.44	6.44	23		08/06/2022 00:31
DONA	0.00	0.59	0.00	6.67	ND		08/06/2022 00:31
PFHxS	0.40	0.40	7.49	7.49	42		08/06/2022 00:31
PFOA	0.40	0.40	7.08	7.08	16		08/06/2022 00:31
6:2 FTS	0.83	0.87	6.74	6.74	90		08/06/2022 00:31
PFHpS	0.46	0.42	8.20	8.20	ND		08/06/2022 00:31
PFNA	0.14	0.13	7.73	7.73	28		08/06/2022 00:31
PFOSAm	N/A	N/A	10.66	10.61	ND		08/06/2022 00:31
PFOS	0.42	0.42	8.90	8.90	54		08/06/2022 00:31
MeFOSA	0.00	0.59	0.00	12.69	ND		08/06/2022 00:31
PFDA	0.20	0.18	8.41	8.40	60		08/06/2022 00:31
EtFOSAm	0.00	0.63	0.00	13.10	ND		08/06/2022 00:31
8:2 FTS	0.93	0.78	8.02	8.02	14		08/06/2022 00:31
9-CI-PF3ON	0.00	0.07	0.00	9.39	ND		08/06/2022 00:31
PFNS	0.26	0.49	9.38	9.58	ND		08/06/2022 00:31
PFUnDA	0.13	0.13	9.09	9.08	10		08/06/2022 00:31
NMeFOSAA	0.00	0.90	0.00	8.26	ND		08/06/2022 00:31
NEtFOSAA	0.00	0.58	0.00	8.55	ND		08/06/2022 00:31
PFDS	0.00	0.37	0.00	10.24	ND		08/06/2022 00:31
PFDOA	0.15	0.17	9.76	9.75	13	J	08/06/2022 00:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/06/2022 00:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/06/2022 00:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/06/2022 00:31
PFTTrDA	0.13	0.19	10.43	10.42	ND		08/06/2022 00:31
PFDoS	0.00	0.49	0.00	11.48	ND		08/06/2022 00:31
PFTDA	0.20	0.25	11.07	11.07	ND		08/06/2022 00:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK27-HA01(0-6)
 Lab Sample ID 10616212027
 Lab File ID B220804B_024
 Matrix Soil
 Collected 07/06/2022 08:30
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.096	0.027	0.027	1	375-22-4		08/05/2022 08:31
PFPeA	0.090 J	0.096	0.027	0.027	1	2706-90-3		08/05/2022 08:31
HFPO-DA	ND	0.096	0.027	0.027	1	13252-13-6		08/05/2022 08:31
PFBS	ND	0.085	0.025	0.025	1	375-73-5		08/05/2022 08:31
PFHxA	0.045 J	0.096	0.026	0.026	1	307-24-4		08/05/2022 08:31
4:2 FTS	ND	0.090	0.022	0.022	1	757124-72-4		08/05/2022 08:31
PFPeS	ND	0.090	0.023	0.023	1	2706-91-4		08/05/2022 08:31
PFHpA	ND	0.096	0.033	0.033	1	375-85-9		08/05/2022 08:31
DONA	ND	0.090	0.035	0.035	1	919005-14-4		08/05/2022 08:31
PFHxS	ND	0.087	0.021	0.021	1	355-46-4		08/05/2022 08:31
PFOA	0.035 J	0.096	0.030	0.030	1	335-67-1		08/05/2022 08:31
6:2 FTS	ND	0.091	0.040	0.040	1	27619-97-2		08/05/2022 08:31
PFHpS	ND	0.091	0.027	0.027	1	375-92-8		08/05/2022 08:31
PFNA	0.053 J	0.096	0.030	0.030	1	375-95-1		08/05/2022 08:31
PFOSAm	ND	0.096	0.028	0.028	1	754-91-6		08/05/2022 08:31
PFOS	0.16	0.089	0.028	0.028	1	1763-23-1		08/05/2022 08:31
MeFOSA	ND	0.096	0.026	0.026	1	31506-32-8		08/05/2022 08:31
PFDA	0.077 J	0.096	0.022	0.022	1	335-76-2		08/05/2022 08:31
EtFOSAm	ND	0.096	0.025	0.025	1	4151-50-2		08/05/2022 08:31
8:2 FTS	ND	0.092	0.042	0.042	1	39108-34-4		08/05/2022 08:31
9-CI-PF3ON	ND	0.089	0.024	0.024	1	756426-58-1		08/05/2022 08:31
PFNS	ND	0.092	0.033	0.033	1	68259-12-1		08/05/2022 08:31
PFUnDA	ND	0.096	0.029	0.029	1	2058-94-8		08/05/2022 08:31
NMeFOSAA	ND	0.096	0.027	0.027	1	2355-31-9		08/05/2022 08:31
NEtFOSAA	ND	0.096	0.038	0.038	1	2991-50-6		08/05/2022 08:31
PFDS	ND	0.092	0.027	0.027	1	335-77-3		08/05/2022 08:31
PFDOA	ND	0.096	0.032	0.032	1	307-55-1		08/05/2022 08:31
MeFOSE	ND	0.096	0.029	0.029	1	24448-09-7		08/05/2022 08:31
EtFOSE	ND	0.096	0.031	0.031	1	1691-99-2		08/05/2022 08:31
11-CI-PF3OUdS	ND	0.090	0.024	0.024	1	763051-92-9		08/05/2022 08:31
PFTTrDA	ND	0.096	0.031	0.031	1	72629-94-8		08/05/2022 08:31
PFDoS	ND	0.093	0.025	0.025	1	79780-39-5		08/05/2022 08:31
PFTDA	ND	0.096	0.033	0.033	1	376-06-7		08/05/2022 08:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK27-HA01(0-6)
 Lab Sample ID 10616212027
 Lab File ID B220804B_024
 Matrix Soil
 Collected 07/06/2022 08:30
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.96	1.2	128	50-150		08/05/2022 08:31
13C4 PFOA	0.96	1.1	114	50-150		08/05/2022 08:31
13C2 PFDA	0.96	1.2	128	50-150		08/05/2022 08:31
13C4 PFOS	0.92	1.2	132	50-150		08/05/2022 08:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.96	0.82	85	25-150		08/05/2022 08:31
13C5 PFPeA	0.96	0.78	81	25-150		08/05/2022 08:31
13C3 PFBS	0.89	0.80	90	25-150		08/05/2022 08:31
13C2 4:2FTS	0.90	0.78	87	25-150		08/05/2022 08:31
13C5 PFHxA	0.96	0.83	87	25-150		08/05/2022 08:31
13C4 PFHpA	0.96	0.88	92	25-150		08/05/2022 08:31
13C3 PFHxS	0.91	0.75	83	25-150		08/05/2022 08:31
13C2 6:2FTS	0.91	0.81	89	25-150		08/05/2022 08:31
13C8 PFOA	0.96	0.89	93	25-150		08/05/2022 08:31
13C9 PFNA	0.96	0.87	90	25-150		08/05/2022 08:31
13C8 PFOS	0.92	0.88	96	25-150		08/05/2022 08:31
13C2 8:2FTS	0.92	1.1	118	25-150		08/05/2022 08:31
13C6 PFDA	0.96	0.90	94	25-150		08/05/2022 08:31
d3-MeFOSAA	0.96	0.88	92	25-150		08/05/2022 08:31
13C8 PFOSA	0.96	0.62	65	25-150		08/05/2022 08:31
d5-EtFOSAA	0.96	0.95	99	25-150		08/05/2022 08:31
13C7 PFUdA	0.96	1.3	131	25-150		08/05/2022 08:31
13C2 PFDoA	0.96	0.95	99	25-150		08/05/2022 08:31
13C2 PFTeDA	0.96	0.97	101	25-150		08/05/2022 08:31
13C3 HFPO-DA	0.96	0.88	91	25-150		08/05/2022 08:31
d7-N-MeFOSE	0.96	0.17	17	10-150		08/05/2022 08:31
d9-N-EtFOSE	0.96	0.21	22	10-150		08/05/2022 08:31
d3-N-MeFOSA	0.96	0.056	6	10-150	R	08/05/2022 08:31
d5-N-EtFOSA	0.96	0.065	7	10-150	R	08/05/2022 08:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK27-HA01(0-6)
 Lab Sample ID 10616212027
 Lab File ID B220804B_024
 Matrix Soil
 Collected 07/06/2022 08:30
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.78	5.80	17		08/05/2022 08:31
13C4 PFOA	N/A	N/A	7.05	7.07	19		08/05/2022 08:31
13C2 PFDA	N/A	N/A	8.38	8.39	18		08/05/2022 08:31
13C4 PFOS	N/A	N/A	8.87	8.88	11		08/05/2022 08:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	23		08/05/2022 08:31
13C5 PFPeA	N/A	N/A	5.13	5.15	21		08/05/2022 08:31
13C3 PFBS	N/A	N/A	6.03	6.05	11		08/05/2022 08:31
13C2 4:2FTS	N/A	N/A	5.52	5.54	51		08/05/2022 08:31
13C5 PFHxA	N/A	N/A	5.78	5.80	17		08/05/2022 08:31
13C4 PFHpA	N/A	N/A	6.41	6.43	19		08/05/2022 08:31
13C3 PFHxS	N/A	N/A	7.47	7.49	11		08/05/2022 08:31
13C2 6:2FTS	N/A	N/A	6.72	6.74	66		08/05/2022 08:31
13C8 PFOA	N/A	N/A	7.05	7.07	21		08/05/2022 08:31
13C9 PFNA	N/A	N/A	7.70	7.72	18		08/05/2022 08:31
13C8 PFOS	N/A	N/A	8.87	8.88	10		08/05/2022 08:31
13C2 8:2FTS	N/A	N/A	7.99	8.01	13		08/05/2022 08:31
13C6 PFDA	N/A	N/A	8.38	8.39	14		08/05/2022 08:31
d3-MeFOSAA	N/A	N/A	8.24	8.25	17		08/05/2022 08:31
13C8 PFOSA	N/A	N/A	10.62	10.61	13		08/05/2022 08:31
d5-EtFOSAA	N/A	N/A	8.53	8.54	17		08/05/2022 08:31
13C7 PFUdA	N/A	N/A	9.05	9.07	21		08/05/2022 08:31
13C2 PFDoA	N/A	N/A	9.73	9.74	10		08/05/2022 08:31
13C2 PFTeDA	N/A	N/A	11.05	11.07	12		08/05/2022 08:31
13C3 HFPO-DA	N/A	N/A	6.04	6.06	16		08/05/2022 08:31
d7-N-MeFOSE	N/A	N/A	12.45	12.45	47		08/05/2022 08:31
d9-N-EtFOSE	N/A	N/A	12.92	12.92	23		08/05/2022 08:31
d3-N-MeFOSA	N/A	N/A	12.66	12.66	40	R	08/05/2022 08:31
d5-N-EtFOSA	N/A	N/A	13.08	13.08	38	R	08/05/2022 08:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK27-HA01(0-6)
 Lab Sample ID 10616212027
 Lab File ID B220804B_024
 Matrix Soil
 Collected 07/06/2022 08:30
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	ND		08/05/2022 08:31
PFPeA	N/A	N/A	5.14	5.15	15	J	08/05/2022 08:31
HFPO-DA	0.00	0.25	0.00	6.07	ND		08/05/2022 08:31
PFBS	0.12	0.43	6.01	6.06	ND		08/05/2022 08:31
PFHxA	0.08	0.08	5.79	5.81	84	J	08/05/2022 08:31
4:2 FTS	0.00	0.88	0.00	5.54	ND		08/05/2022 08:31
PFPeS	0.45	0.44	6.80	6.79	ND		08/05/2022 08:31
PFHpA	0.34	0.25	6.42	6.44	ND		08/05/2022 08:31
DONA	0.00	0.58	0.00	6.67	ND		08/05/2022 08:31
PFHxS	0.36	0.40	7.48	7.49	ND		08/05/2022 08:31
PFOA	0.42	0.45	7.06	7.08	69	J	08/05/2022 08:31
6:2 FTS	1.20	0.79	6.73	6.74	ND		08/05/2022 08:31
PFHpS	0.00	0.37	0.00	8.20	ND		08/05/2022 08:31
PFNA	0.12	0.13	7.71	7.73	16	J	08/05/2022 08:31
PFOSAm	N/A	N/A	0.00	10.61	ND		08/05/2022 08:31
PFOS	0.37	0.41	8.88	8.90	36		08/05/2022 08:31
MeFOSA	0.00	0.58	0.00	12.69	ND		08/05/2022 08:31
PFDA	0.17	0.19	8.39	8.40	16	J	08/05/2022 08:31
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/05/2022 08:31
8:2 FTS	0.97	0.84	7.99	8.02	ND		08/05/2022 08:31
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/05/2022 08:31
PFNS	0.00	0.45	0.00	9.58	ND		08/05/2022 08:31
PFUnDA	0.04	0.12	9.06	9.08	ND		08/05/2022 08:31
NMeFOSAA	0.00	0.91	0.00	8.26	ND		08/05/2022 08:31
NEtFOSAA	0.00	0.61	0.00	8.55	ND		08/05/2022 08:31
PFDS	0.00	0.36	0.00	10.24	ND		08/05/2022 08:31
PFDOA	0.17	0.17	9.74	9.75	ND		08/05/2022 08:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 08:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 08:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 08:31
PFTTrDA	0.00	0.15	0.00	10.42	ND		08/05/2022 08:31
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 08:31
PFTDA	0.00	0.24	0.00	11.07	ND		08/05/2022 08:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK28-HA01(0-6)
 Lab Sample ID 10616212028
 Lab File ID B220804B_025
 Matrix Soil
 Collected 07/06/2022 15:05
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.13	0.096	0.027	0.027	1	375-22-4		08/05/2022 08:51
PFPeA	0.041 J	0.096	0.027	0.027	1	2706-90-3		08/05/2022 08:51
HFPO-DA	ND	0.096	0.027	0.027	1	13252-13-6		08/05/2022 08:51
PFBS	ND	0.085	0.025	0.025	1	375-73-5		08/05/2022 08:51
PFHxA	0.046 J	0.096	0.026	0.026	1	307-24-4		08/05/2022 08:51
4:2 FTS	ND	0.090	0.022	0.022	1	757124-72-4		08/05/2022 08:51
PFPeS	ND	0.090	0.023	0.023	1	2706-91-4		08/05/2022 08:51
PFHpA	0.073 J	0.096	0.033	0.033	1	375-85-9		08/05/2022 08:51
DONA	ND	0.091	0.035	0.035	1	919005-14-4		08/05/2022 08:51
PFHxS	ND	0.087	0.021	0.021	1	355-46-4		08/05/2022 08:51
PFOA	0.22	0.096	0.030	0.030	1	335-67-1		08/05/2022 08:51
6:2 FTS	ND	0.091	0.040	0.040	1	27619-97-2		08/05/2022 08:51
PFHpS	ND	0.091	0.027	0.027	1	375-92-8		08/05/2022 08:51
PFNA	0.10	0.096	0.030	0.030	1	375-95-1		08/05/2022 08:51
PFOSAm	ND	0.096	0.028	0.028	1	754-91-6		08/05/2022 08:51
PFOS	0.29	0.089	0.028	0.028	1	1763-23-1		08/05/2022 08:51
MeFOSA	ND	0.096	0.026	0.026	1	31506-32-8		08/05/2022 08:51
PFDA	0.054 J	0.096	0.022	0.022	1	335-76-2		08/05/2022 08:51
EtFOSAm	ND	0.096	0.025	0.025	1	4151-50-2		08/05/2022 08:51
8:2 FTS	ND	0.092	0.042	0.042	1	39108-34-4		08/05/2022 08:51
9-CI-PF3ON	ND	0.089	0.024	0.024	1	756426-58-1		08/05/2022 08:51
PFNS	ND	0.092	0.033	0.033	1	68259-12-1		08/05/2022 08:51
PFUnDA	0.063 J	0.096	0.029	0.029	1	2058-94-8		08/05/2022 08:51
NMeFOSAA	ND	0.096	0.027	0.027	1	2355-31-9		08/05/2022 08:51
NEtFOSAA	ND	0.096	0.039	0.039	1	2991-50-6		08/05/2022 08:51
PFDS	ND	0.093	0.027	0.027	1	335-77-3		08/05/2022 08:51
PFDOA	ND	0.096	0.032	0.032	1	307-55-1		08/05/2022 08:51
MeFOSE	ND	0.096	0.029	0.029	1	24448-09-7		08/05/2022 08:51
EtFOSE	ND	0.096	0.031	0.031	1	1691-99-2		08/05/2022 08:51
11-CI-PF3OUdS	ND	0.090	0.024	0.024	1	763051-92-9		08/05/2022 08:51
PFTTrDA	ND	0.096	0.031	0.031	1	72629-94-8		08/05/2022 08:51
PFDoS	ND	0.093	0.025	0.025	1	79780-39-5		08/05/2022 08:51
PFTDA	ND	0.096	0.033	0.033	1	376-06-7		08/05/2022 08:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK28-HA01(0-6)
 Lab Sample ID 10616212028
 Lab File ID B220804B_025
 Matrix Soil
 Collected 07/06/2022 15:05
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.96	1.1	120	50-150		08/05/2022 08:51
13C4 PFOA	0.96	0.99	103	50-150		08/05/2022 08:51
13C2 PFDA	0.96	1.1	119	50-150		08/05/2022 08:51
13C4 PFOS	0.92	1.1	119	50-150		08/05/2022 08:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.96	0.80	83	25-150		08/05/2022 08:51
13C5 PFPeA	0.96	0.79	82	25-150		08/05/2022 08:51
13C3 PFBS	0.89	0.71	80	25-150		08/05/2022 08:51
13C2 4:2FTS	0.90	0.71	80	25-150		08/05/2022 08:51
13C5 PFHxA	0.96	0.82	86	25-150		08/05/2022 08:51
13C4 PFHpA	0.96	0.79	83	25-150		08/05/2022 08:51
13C3 PFHxS	0.91	0.76	84	25-150		08/05/2022 08:51
13C2 6:2FTS	0.91	0.75	82	25-150		08/05/2022 08:51
13C8 PFOA	0.96	0.86	90	25-150		08/05/2022 08:51
13C9 PFNA	0.96	0.81	84	25-150		08/05/2022 08:51
13C8 PFOS	0.92	0.85	92	25-150		08/05/2022 08:51
13C2 8:2FTS	0.92	1.0	109	25-150		08/05/2022 08:51
13C6 PFDA	0.96	0.83	87	25-150		08/05/2022 08:51
d3-MeFOSAA	0.96	0.78	81	25-150		08/05/2022 08:51
13C8 PFOSA	0.96	0.49	51	25-150		08/05/2022 08:51
d5-EtFOSAA	0.96	0.84	88	25-150		08/05/2022 08:51
13C7 PFUdA	0.96	1.1	112	25-150		08/05/2022 08:51
13C2 PFDoA	0.96	0.89	92	25-150		08/05/2022 08:51
13C2 PFTeDA	0.96	0.67	70	25-150		08/05/2022 08:51
13C3 HFPO-DA	0.96	0.77	80	25-150		08/05/2022 08:51
d7-N-MeFOSE	0.96	0.069	7	10-150	R	08/05/2022 08:51
d9-N-EtFOSE	0.96	0.084	9	10-150	R	08/05/2022 08:51
d3-N-MeFOSA	0.96	0.0081	1	10-150	R	08/05/2022 08:51
d5-N-EtFOSA	0.96	0.0065	1	10-150	R	08/05/2022 08:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK28-HA01(0-6)
 Lab Sample ID 10616212028
 Lab File ID B220804B_025
 Matrix Soil
 Collected 07/06/2022 15:05
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.78	5.80	17		08/05/2022 08:51
13C4 PFOA	N/A	N/A	7.05	7.07	19		08/05/2022 08:51
13C2 PFDA	N/A	N/A	8.38	8.39	20		08/05/2022 08:51
13C4 PFOS	N/A	N/A	8.87	8.88	15		08/05/2022 08:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	27		08/05/2022 08:51
13C5 PFPeA	N/A	N/A	5.13	5.15	24		08/05/2022 08:51
13C3 PFBS	N/A	N/A	6.03	6.05	14		08/05/2022 08:51
13C2 4:2FTS	N/A	N/A	5.52	5.54	50		08/05/2022 08:51
13C5 PFHxA	N/A	N/A	5.78	5.80	17		08/05/2022 08:51
13C4 PFHpA	N/A	N/A	6.42	6.43	17		08/05/2022 08:51
13C3 PFHxS	N/A	N/A	7.47	7.49	13		08/05/2022 08:51
13C2 6:2FTS	N/A	N/A	6.72	6.74	91		08/05/2022 08:51
13C8 PFOA	N/A	N/A	7.05	7.07	23		08/05/2022 08:51
13C9 PFNA	N/A	N/A	7.71	7.72	18		08/05/2022 08:51
13C8 PFOS	N/A	N/A	8.88	8.88	13		08/05/2022 08:51
13C2 8:2FTS	N/A	N/A	8.00	8.01	13		08/05/2022 08:51
13C6 PFDA	N/A	N/A	8.38	8.39	14		08/05/2022 08:51
d3-MeFOSAA	N/A	N/A	8.24	8.25	13		08/05/2022 08:51
13C8 PFOSA	N/A	N/A	10.62	10.61	12		08/05/2022 08:51
d5-EtFOSAA	N/A	N/A	8.53	8.54	14		08/05/2022 08:51
13C7 PFUdA	N/A	N/A	9.06	9.07	18		08/05/2022 08:51
13C2 PFDoA	N/A	N/A	9.74	9.74	11		08/05/2022 08:51
13C2 PFTeDA	N/A	N/A	11.05	11.07	12		08/05/2022 08:51
13C3 HFPO-DA	N/A	N/A	6.04	6.06	17		08/05/2022 08:51
d7-N-MeFOSE	N/A	N/A	12.45	12.45	47	R	08/05/2022 08:51
d9-N-EtFOSE	N/A	N/A	12.92	12.92	20	R	08/05/2022 08:51
d3-N-MeFOSA	N/A	N/A	12.66	12.66	11	R	08/05/2022 08:51
d5-N-EtFOSA	N/A	N/A	13.07	13.08	83	R	08/05/2022 08:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK28-HA01(0-6)
 Lab Sample ID 10616212028
 Lab File ID B220804B_025
 Matrix Soil
 Collected 07/06/2022 15:05
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.22g
 Ical ID 220803A02
 CCal File B220804B_015
 Ending CCal File B220804B_026
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	10		08/05/2022 08:51
PFPeA	N/A	N/A	5.14	5.15	10	J	08/05/2022 08:51
HFPO-DA	1.40	0.25	6.05	6.07	ND		08/05/2022 08:51
PFBS	0.44	0.43	6.03	6.06	ND		08/05/2022 08:51
PFHxA	0.11	0.08	5.79	5.81	14	J	08/05/2022 08:51
4:2 FTS	0.00	0.88	0.00	5.54	ND		08/05/2022 08:51
PFPeS	0.39	0.44	6.77	6.79	ND		08/05/2022 08:51
PFHpA	0.29	0.25	6.42	6.44	23	J	08/05/2022 08:51
DONA	0.00	0.58	0.00	6.67	ND		08/05/2022 08:51
PFHxS	0.44	0.40	7.48	7.49	ND		08/05/2022 08:51
PFOA	0.43	0.45	7.06	7.08	19		08/05/2022 08:51
6:2 FTS	0.66	0.79	6.72	6.74	ND		08/05/2022 08:51
PFHpS	0.00	0.37	0.00	8.20	ND		08/05/2022 08:51
PFNA	0.14	0.13	7.71	7.73	27		08/05/2022 08:51
PFOSAm	N/A	N/A	10.63	10.61	ND		08/05/2022 08:51
PFOS	0.36	0.41	8.89	8.90	61		08/05/2022 08:51
MeFOSA	0.00	0.58	0.00	12.69	ND		08/05/2022 08:51
PFDA	0.19	0.19	8.39	8.40	12	J	08/05/2022 08:51
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/05/2022 08:51
8:2 FTS	2.20	0.84	8.00	8.02	ND		08/05/2022 08:51
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/05/2022 08:51
PFNS	0.00	0.45	0.00	9.58	ND		08/05/2022 08:51
PFUnDA	0.13	0.12	9.06	9.08	69	J	08/05/2022 08:51
NMeFOSAA	1.50	0.91	8.26	8.26	ND		08/05/2022 08:51
NEtFOSAA	0.52	0.61	8.54	8.55	ND		08/05/2022 08:51
PFDS	0.36	0.36	10.23	10.24	ND		08/05/2022 08:51
PFDOA	0.21	0.17	9.75	9.75	ND		08/05/2022 08:51
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 08:51
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 08:51
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 08:51
PFTTrDA	0.17	0.15	10.41	10.42	ND		08/05/2022 08:51
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 08:51
PFTDA	0.14	0.24	11.06	11.07	ND		08/05/2022 08:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK29-HA01(0-6)
 Lab Sample ID 10616212029
 Lab File ID B220804B_027
 Matrix Soil
 Collected 07/06/2022 15:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.56g
 Ical ID 220803A02
 CCal File B220804B_026
 Ending CCal File B220804B_031
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	0.11	0.090	0.025	0.025	1	375-22-4		08/05/2022 09:31
PFPeA	0.030 J	0.090	0.026	0.026	1	2706-90-3		08/05/2022 09:31
HFPO-DA	ND	0.090	0.025	0.025	1	13252-13-6		08/05/2022 09:31
PFBS	0.024 IJ	0.080	0.024	0.024	1	375-73-5		08/05/2022 09:31
PFHxA	0.029 J	0.090	0.025	0.025	1	307-24-4		08/05/2022 09:31
4:2 FTS	ND	0.084	0.021	0.021	1	757124-72-4		08/05/2022 09:31
PFPeS	ND	0.085	0.022	0.022	1	2706-91-4		08/05/2022 09:31
PFHpA	0.047 J	0.090	0.031	0.031	1	375-85-9		08/05/2022 09:31
DONA	ND	0.085	0.033	0.033	1	919005-14-4		08/05/2022 09:31
PFHxS	ND	0.082	0.020	0.020	1	355-46-4		08/05/2022 09:31
PFOA	0.069 J	0.090	0.028	0.028	1	335-67-1		08/05/2022 09:31
6:2 FTS	ND	0.085	0.037	0.037	1	27619-97-2		08/05/2022 09:31
PFHpS	ND	0.085	0.025	0.025	1	375-92-8		08/05/2022 09:31
PFNA	0.074 J	0.090	0.028	0.028	1	375-95-1		08/05/2022 09:31
PFOSAm	ND	0.090	0.026	0.026	1	754-91-6		08/05/2022 09:31
PFOS	0.26	0.083	0.027	0.027	1	1763-23-1		08/05/2022 09:31
MeFOSA	ND	0.090	0.024	0.024	1	31506-32-8		08/05/2022 09:31
PFDA	0.060 J	0.090	0.021	0.021	1	335-76-2		08/05/2022 09:31
EtFOSAm	0.30	0.090	0.023	0.023	1	4151-50-2		08/05/2022 09:31
8:2 FTS	ND	0.086	0.040	0.040	1	39108-34-4		08/05/2022 09:31
9-CI-PF3ON	ND	0.084	0.023	0.023	1	756426-58-1		08/05/2022 09:31
PFNS	ND	0.086	0.031	0.031	1	68259-12-1		08/05/2022 09:31
PFUnDA	0.062 J	0.090	0.027	0.027	1	2058-94-8		08/05/2022 09:31
NMeFOSAA	ND	0.090	0.025	0.025	1	2355-31-9		08/05/2022 09:31
NEtFOSAA	ND	0.090	0.036	0.036	1	2991-50-6		08/05/2022 09:31
PFDS	ND	0.087	0.025	0.025	1	335-77-3		08/05/2022 09:31
PFDOA	ND	0.090	0.030	0.030	1	307-55-1		08/05/2022 09:31
MeFOSE	ND	0.090	0.027	0.027	1	24448-09-7		08/05/2022 09:31
EtFOSE	ND	0.090	0.029	0.029	1	1691-99-2		08/05/2022 09:31
11-CI-PF3OUdS	ND	0.085	0.023	0.023	1	763051-92-9		08/05/2022 09:31
PFTTrDA	ND	0.090	0.029	0.029	1	72629-94-8		08/05/2022 09:31
PFDoS	ND	0.087	0.023	0.023	1	79780-39-5		08/05/2022 09:31
PFTDA	ND	0.090	0.031	0.031	1	376-06-7		08/05/2022 09:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK29-HA01(0-6)
 Lab Sample ID 10616212029
 Lab File ID B220804B_027
 Matrix Soil
 Collected 07/06/2022 15:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.56g
 Ical ID 220803A02
 CCal File B220804B_026
 Ending CCal File B220804B_031
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.90	1.2	130	50-150		08/05/2022 09:31
13C4 PFOA	0.90	1.1	127	50-150		08/05/2022 09:31
13C2 PFDA	0.90	1.3	142	50-150		08/05/2022 09:31
13C4 PFOS	0.86	1.1	123	50-150		08/05/2022 09:31

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.90	0.75	84	25-150		08/05/2022 09:31
13C5 PFPeA	0.90	0.79	88	25-150		08/05/2022 09:31
13C3 PFBS	0.84	0.78	93	25-150		08/05/2022 09:31
13C2 4:2FTS	0.84	0.69	82	25-150		08/05/2022 09:31
13C5 PFHxA	0.90	0.76	84	25-150		08/05/2022 09:31
13C4 PFHpA	0.90	0.78	86	25-150		08/05/2022 09:31
13C3 PFHxS	0.85	0.75	88	25-150		08/05/2022 09:31
13C2 6:2FTS	0.85	0.80	94	25-150		08/05/2022 09:31
13C8 PFOA	0.90	0.78	87	25-150		08/05/2022 09:31
13C9 PFNA	0.90	0.87	97	25-150		08/05/2022 09:31
13C8 PFOS	0.86	0.80	92	25-150		08/05/2022 09:31
13C2 8:2FTS	0.86	0.98	114	25-150		08/05/2022 09:31
13C6 PFDA	0.90	0.91	101	25-150		08/05/2022 09:31
d3-MeFOSAA	0.90	0.77	86	25-150		08/05/2022 09:31
13C8 PFOSA	0.90	0.47	52	25-150		08/05/2022 09:31
d5-EtFOSAA	0.90	0.78	87	25-150		08/05/2022 09:31
13C7 PFUdA	0.90	0.83	92	25-150		08/05/2022 09:31
13C2 PFDoA	0.90	0.84	93	25-150		08/05/2022 09:31
13C2 PFTeDA	0.90	0.78	87	25-150		08/05/2022 09:31
13C3 HFPO-DA	0.90	0.75	83	25-150		08/05/2022 09:31
d7-N-MeFOSE	0.90	0.033	4	10-150	R	08/05/2022 09:31
d9-N-EtFOSE	0.90	0.046	5	10-150	R	08/05/2022 09:31
d3-N-MeFOSA	0.90	0.0070	1	10-150	R	08/05/2022 09:31
d5-N-EtFOSA	0.90	0.0075	1	10-150	R	08/05/2022 09:31

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Total Amount Extracted 5.56g
 Ical ID 220803A02
 CCal File B220804B_026
 Ending CCal File B220804B_031
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.80	25		08/05/2022 09:31
13C4 PFOA	N/A	N/A	7.05	7.07	22		08/05/2022 09:31
13C2 PFDA	N/A	N/A	8.38	8.39	18		08/05/2022 09:31
13C4 PFOS	N/A	N/A	8.87	8.88	80		08/05/2022 09:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	26		08/05/2022 09:31
13C5 PFPeA	N/A	N/A	5.14	5.15	22		08/05/2022 09:31
13C3 PFBS	N/A	N/A	6.04	6.05	99		08/05/2022 09:31
13C2 4:2FTS	N/A	N/A	5.53	5.54	41		08/05/2022 09:31
13C5 PFHxA	N/A	N/A	5.79	5.80	17		08/05/2022 09:31
13C4 PFHpA	N/A	N/A	6.42	6.43	15		08/05/2022 09:31
13C3 PFHxS	N/A	N/A	7.48	7.49	12		08/05/2022 09:31
13C2 6:2FTS	N/A	N/A	6.72	6.74	69		08/05/2022 09:31
13C8 PFOA	N/A	N/A	7.06	7.07	18		08/05/2022 09:31
13C9 PFNA	N/A	N/A	7.71	7.72	21		08/05/2022 09:31
13C8 PFOS	N/A	N/A	8.87	8.88	82		08/05/2022 09:31
13C2 8:2FTS	N/A	N/A	8.00	8.01	10		08/05/2022 09:31
13C6 PFDA	N/A	N/A	8.38	8.39	24		08/05/2022 09:31
d3-MeFOSAA	N/A	N/A	8.24	8.25	14		08/05/2022 09:31
13C8 PFOSA	N/A	N/A	10.62	10.61	15		08/05/2022 09:31
d5-EtFOSAA	N/A	N/A	8.53	8.54	14		08/05/2022 09:31
13C7 PFUdA	N/A	N/A	9.06	9.07	16		08/05/2022 09:31
13C2 PFDoA	N/A	N/A	9.74	9.74	10		08/05/2022 09:31
13C2 PFTeDA	N/A	N/A	11.05	11.07	11		08/05/2022 09:31
13C3 HFPO-DA	N/A	N/A	6.05	6.06	17		08/05/2022 09:31
d7-N-MeFOSE	N/A	N/A	12.45	12.45	37	R	08/05/2022 09:31
d9-N-EtFOSE	N/A	N/A	12.92	12.92	13	R	08/05/2022 09:31
d3-N-MeFOSA	N/A	N/A	12.66	12.66	78	R	08/05/2022 09:31
d5-N-EtFOSA	N/A	N/A	13.08	13.08	10	R	08/05/2022 09:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-TK29-HA01(0-6)
 Lab Sample ID 10616212029
 Lab File ID B220804B_027
 Matrix Soil
 Collected 07/06/2022 15:15
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.56g
 Ical ID 220803A02
 CCal File B220804B_026
 Ending CCal File B220804B_031
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	13		08/05/2022 09:31
PFPeA	N/A	N/A	5.14	5.15	10	J	08/05/2022 09:31
HFPO-DA	0.35	0.29	6.05	6.07	ND		08/05/2022 09:31
PFBS	0.07	0.47	6.00	6.06	10	IJ	08/05/2022 09:31
PFHxA	0.10	0.08	5.79	5.81	74	J	08/05/2022 09:31
4:2 FTS	0.00	0.86	0.00	5.54	ND		08/05/2022 09:31
PFPeS	0.32	0.47	6.78	6.79	ND		08/05/2022 09:31
PFHpA	0.27	0.33	6.42	6.44	26	J	08/05/2022 09:31
DONA	0.49	0.55	6.66	6.67	ND		08/05/2022 09:31
PFHxS	0.40	0.40	7.48	7.49	ND		08/05/2022 09:31
PFOA	0.43	0.42	7.06	7.08	11	J	08/05/2022 09:31
6:2 FTS	1.40	0.82	6.73	6.74	ND		08/05/2022 09:31
PFHpS	0.00	0.40	0.00	8.20	ND		08/05/2022 09:31
PFNA	0.13	0.15	7.72	7.73	22	J	08/05/2022 09:31
PFOSAm	N/A	N/A	10.63	10.61	ND		08/05/2022 09:31
PFOS	0.43	0.40	8.89	8.90	46		08/05/2022 09:31
MeFOSA	0.00	0.57	0.00	12.69	ND		08/05/2022 09:31
PFDA	0.16	0.20	8.40	8.40	18	J	08/05/2022 09:31
EtFOSAm	0.47	0.58	13.09	13.10	68		08/05/2022 09:31
8:2 FTS	0.73	0.92	8.01	8.02	ND		08/05/2022 09:31
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/05/2022 09:31
PFNS	0.28	0.51	9.58	9.58	ND		08/05/2022 09:31
PFUnDA	0.14	0.15	9.06	9.08	80	J	08/05/2022 09:31
NMeFOSAA	0.48	0.92	8.25	8.26	ND		08/05/2022 09:31
NEtFOSAA	0.70	0.63	8.54	8.55	ND		08/05/2022 09:31
PFDS	0.39	0.37	10.23	10.24	ND		08/05/2022 09:31
PFDOA	0.18	0.21	9.75	9.75	ND		08/05/2022 09:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 09:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 09:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 09:31
PFTTrDA	0.17	0.18	10.41	10.42	ND		08/05/2022 09:31
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 09:31
PFTDA	0.21	0.27	11.06	11.07	ND		08/05/2022 09:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Building A-HA01(0-6)
 Lab Sample ID 10616212030
 Lab File ID B220804B_028
 Matrix Soil
 Collected 07/06/2022 14:50
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.10g
 Ical ID 220803A02
 CCal File B220804B_026
 Ending CCal File B220804B_031
 Blank File B220804B_005

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.098	0.028	0.028	1	375-22-4		08/05/2022 09:51
PFPeA	0.076 J	0.098	0.028	0.028	1	2706-90-3		08/05/2022 09:51
HFPO-DA	ND	0.098	0.027	0.027	1	13252-13-6		08/05/2022 09:51
PFBS	ND	0.087	0.026	0.026	1	375-73-5		08/05/2022 09:51
PFHxA	0.057 J	0.098	0.027	0.027	1	307-24-4		08/05/2022 09:51
4:2 FTS	ND	0.092	0.023	0.023	1	757124-72-4		08/05/2022 09:51
PFPeS	ND	0.092	0.024	0.024	1	2706-91-4		08/05/2022 09:51
PFHpA	ND	0.098	0.034	0.034	1	375-85-9		08/05/2022 09:51
DONA	ND	0.093	0.036	0.036	1	919005-14-4		08/05/2022 09:51
PFHxS	0.029 J	0.089	0.021	0.021	1	355-46-4		08/05/2022 09:51
PFOA	0.038 J	0.098	0.030	0.030	1	335-67-1		08/05/2022 09:51
6:2 FTS	ND	0.093	0.041	0.041	1	27619-97-2		08/05/2022 09:51
PFHpS	ND	0.093	0.027	0.027	1	375-92-8		08/05/2022 09:51
PFNA	ND	0.098	0.030	0.030	1	375-95-1		08/05/2022 09:51
PFOSAm	ND	0.098	0.029	0.029	1	754-91-6		08/05/2022 09:51
PFOS	0.73	0.091	0.029	0.029	1	1763-23-1		08/05/2022 09:51
MeFOSA	ND	0.098	0.027	0.027	1	31506-32-8		08/05/2022 09:51
PFDA	0.32	0.098	0.022	0.022	1	335-76-2		08/05/2022 09:51
EtFOSAm	ND	0.098	0.025	0.025	1	4151-50-2		08/05/2022 09:51
8:2 FTS	ND	0.094	0.043	0.043	1	39108-34-4		08/05/2022 09:51
9-CI-PF3ON	ND	0.091	0.025	0.025	1	756426-58-1		08/05/2022 09:51
PFNS	ND	0.094	0.034	0.034	1	68259-12-1		08/05/2022 09:51
PFUnDA	0.049 J	0.098	0.030	0.030	1	2058-94-8		08/05/2022 09:51
NMeFOSAA	ND	0.098	0.028	0.028	1	2355-31-9		08/05/2022 09:51
NEtFOSAA	0.074 J	0.098	0.039	0.039	1	2991-50-6		08/05/2022 09:51
PFDS	0.039 J	0.095	0.028	0.028	1	335-77-3		08/05/2022 09:51
PFDOA	0.069 J	0.098	0.032	0.032	1	307-55-1		08/05/2022 09:51
MeFOSE	ND	0.098	0.030	0.030	1	24448-09-7		08/05/2022 09:51
EtFOSE	ND	0.098	0.032	0.032	1	1691-99-2		08/05/2022 09:51
11-CI-PF3OUdS	ND	0.092	0.025	0.025	1	763051-92-9		08/05/2022 09:51
PFTTrDA	ND	0.098	0.031	0.031	1	72629-94-8		08/05/2022 09:51
PFDoS	ND	0.095	0.026	0.026	1	79780-39-5		08/05/2022 09:51
PFTDA	ND	0.098	0.034	0.034	1	376-06-7		08/05/2022 09:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Building A-HA01(0-6)
 Lab Sample ID 10616212030
 Lab File ID B220804B_028
 Matrix Soil
 Collected 07/06/2022 14:50
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.10g
 Ical ID 220803A02
 CCal File B220804B_026
 Ending CCal File B220804B_031
 Blank File B220804B_005

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.98	1.3	137	50-150		08/05/2022 09:51
13C4 PFOA	0.98	1.2	119	50-150		08/05/2022 09:51
13C2 PFDA	0.98	1.3	138	50-150		08/05/2022 09:51
13C4 PFOS	0.94	1.2	131	50-150		08/05/2022 09:51

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.98	0.84	86	25-150		08/05/2022 09:51
13C5 PFPeA	0.98	0.92	94	25-150		08/05/2022 09:51
13C3 PFBS	0.91	0.88	96	25-150		08/05/2022 09:51
13C2 4:2FTS	0.92	1.2	133	25-150		08/05/2022 09:51
13C5 PFHxA	0.98	0.86	88	25-150		08/05/2022 09:51
13C4 PFHpA	0.98	0.93	95	25-150		08/05/2022 09:51
13C3 PFHxS	0.93	0.82	89	25-150		08/05/2022 09:51
13C2 6:2FTS	0.93	1.1	120	25-150		08/05/2022 09:51
13C8 PFOA	0.98	0.87	88	25-150		08/05/2022 09:51
13C9 PFNA	0.98	0.95	97	25-150		08/05/2022 09:51
13C8 PFOS	0.94	0.90	96	25-150		08/05/2022 09:51
13C2 8:2FTS	0.94	1.4	152	25-150	R	08/05/2022 09:51
13C6 PFDA	0.98	1.0	104	25-150		08/05/2022 09:51
d3-MeFOSAA	0.98	1.0	106	25-150		08/05/2022 09:51
13C8 PFOSA	0.98	0.72	74	25-150		08/05/2022 09:51
d5-EtFOSAA	0.98	1.0	103	25-150		08/05/2022 09:51
13C7 PFUdA	0.98	1.0	105	25-150		08/05/2022 09:51
13C2 PFDoA	0.98	1.3	129	25-150		08/05/2022 09:51
13C2 PFTeDA	0.98	1.1	110	25-150		08/05/2022 09:51
13C3 HFPO-DA	0.98	0.76	77	25-150		08/05/2022 09:51
d7-N-MeFOSE	0.98	0.32	33	10-150		08/05/2022 09:51
d9-N-EtFOSE	0.98	0.31	32	10-150		08/05/2022 09:51
d3-N-MeFOSA	0.98	0.080	8	10-150	R	08/05/2022 09:51
d5-N-EtFOSA	0.98	0.087	9	10-150	R	08/05/2022 09:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Building A-HA01(0-6)
 Lab Sample ID 10616212030
 Lab File ID B220804B_028
 Matrix Soil
 Collected 07/06/2022 14:50
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.10g
 Ical ID 220803A02
 CCal File B220804B_026
 Ending CCal File B220804B_031
 Blank File B220804B_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.80	19		08/05/2022 09:51
13C4 PFOA	N/A	N/A	7.05	7.07	17		08/05/2022 09:51
13C2 PFDA	N/A	N/A	8.38	8.39	15		08/05/2022 09:51
13C4 PFOS	N/A	N/A	8.87	8.88	49		08/05/2022 09:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.29	4.30	22		08/05/2022 09:51
13C5 PFPeA	N/A	N/A	5.13	5.15	23		08/05/2022 09:51
13C3 PFBS	N/A	N/A	6.03	6.05	73		08/05/2022 09:51
13C2 4:2FTS	N/A	N/A	5.52	5.54	44		08/05/2022 09:51
13C5 PFHxA	N/A	N/A	5.79	5.80	15		08/05/2022 09:51
13C4 PFHpA	N/A	N/A	6.42	6.43	11		08/05/2022 09:51
13C3 PFHxS	N/A	N/A	7.47	7.49	93		08/05/2022 09:51
13C2 6:2FTS	N/A	N/A	6.72	6.74	40		08/05/2022 09:51
13C8 PFOA	N/A	N/A	7.05	7.07	16		08/05/2022 09:51
13C9 PFNA	N/A	N/A	7.71	7.72	19		08/05/2022 09:51
13C8 PFOS	N/A	N/A	8.88	8.88	50		08/05/2022 09:51
13C2 8:2FTS	N/A	N/A	8.00	8.01	59	R	08/05/2022 09:51
13C6 PFDA	N/A	N/A	8.38	8.39	15		08/05/2022 09:51
d3-MeFOSAA	N/A	N/A	8.24	8.25	16		08/05/2022 09:51
13C8 PFOSA	N/A	N/A	10.62	10.61	15		08/05/2022 09:51
d5-EtFOSAA	N/A	N/A	8.54	8.54	12		08/05/2022 09:51
13C7 PFUdA	N/A	N/A	9.06	9.07	20		08/05/2022 09:51
13C2 PFDoA	N/A	N/A	9.74	9.74	11		08/05/2022 09:51
13C2 PFTeDA	N/A	N/A	11.05	11.07	12		08/05/2022 09:51
13C3 HFPO-DA	N/A	N/A	6.04	6.06	13		08/05/2022 09:51
d7-N-MeFOSE	N/A	N/A	12.45	12.45	46		08/05/2022 09:51
d9-N-EtFOSE	N/A	N/A	12.92	12.92	22		08/05/2022 09:51
d3-N-MeFOSA	N/A	N/A	12.66	12.66	41	R	08/05/2022 09:51
d5-N-EtFOSA	N/A	N/A	13.08	13.08	38	R	08/05/2022 09:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Building A-HA01(0-6)
 Lab Sample ID 10616212030
 Lab File ID B220804B_028
 Matrix Soil
 Collected 07/06/2022 14:50
 Received 07/08/2022 18:45
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.10g
 Ical ID 220803A02
 CCal File B220804B_026
 Ending CCal File B220804B_031
 Blank File B220804B_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	ND		08/05/2022 09:51
PFPeA	N/A	N/A	5.14	5.15	14	J	08/05/2022 09:51
HFPO-DA	0.00	0.29	0.00	6.07	ND		08/05/2022 09:51
PFBS	0.28	0.47	6.03	6.06	ND		08/05/2022 09:51
PFHxA	0.09	0.08	5.79	5.81	66	J	08/05/2022 09:51
4:2 FTS	0.00	0.86	0.00	5.54	ND		08/05/2022 09:51
PFPeS	0.42	0.47	6.78	6.79	ND		08/05/2022 09:51
PFHpA	0.31	0.33	6.42	6.44	ND		08/05/2022 09:51
DONA	0.00	0.55	0.00	6.67	ND		08/05/2022 09:51
PFHxS	0.34	0.40	7.48	7.49	78	J	08/05/2022 09:51
PFOA	0.38	0.42	7.06	7.08	62	J	08/05/2022 09:51
6:2 FTS	1.00	0.82	6.72	6.74	ND		08/05/2022 09:51
PFHpS	0.00	0.40	0.00	8.20	ND		08/05/2022 09:51
PFNA	0.12	0.15	7.71	7.73	ND		08/05/2022 09:51
PFOSAm	N/A	N/A	10.63	10.61	ND		08/05/2022 09:51
PFOS	0.44	0.40	8.89	8.90	37		08/05/2022 09:51
MeFOSA	0.00	0.57	0.00	12.69	ND		08/05/2022 09:51
PFDA	0.19	0.20	8.39	8.40	35		08/05/2022 09:51
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/05/2022 09:51
8:2 FTS	1.00	0.92	8.01	8.02	ND		08/05/2022 09:51
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/05/2022 09:51
PFNS	0.38	0.51	9.57	9.58	ND		08/05/2022 09:51
PFUnDA	0.12	0.15	9.07	9.08	65	J	08/05/2022 09:51
NMeFOSAA	0.92	0.92	8.25	8.26	ND		08/05/2022 09:51
NEtFOSAA	0.65	0.63	8.55	8.55	25	J	08/05/2022 09:51
PFDS	0.47	0.37	10.23	10.24	73	J	08/05/2022 09:51
PFDOA	0.20	0.21	9.74	9.75	20	J	08/05/2022 09:51
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 09:51
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 09:51
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 09:51
PFTTrDA	0.15	0.18	10.41	10.42	ND		08/05/2022 09:51
PFDoS	0.00	0.49	0.00	11.48	ND		08/05/2022 09:51
PFTDA	0.26	0.27	11.05	11.07	ND		08/05/2022 09:51

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Building B-HA01(0-6)
 Lab Sample ID 10616212031
 Lab File ID B220811A_008
 Matrix Soil
 Collected 07/06/2022 14:35
 Received 07/08/2022 18:45
 Extraction Date 08/01/2022 12:25

Total Amount Extracted 5.12g
 Ical ID 220810B02
 CCal File B220811A_005
 Ending CCal File B220811A_017
 Blank File B220811C_044

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.098	0.028	0.028	1	375-22-4		08/11/2022 11:30
PFPeA	0.065 J	0.098	0.028	0.028	1	2706-90-3		08/11/2022 11:30
HFPO-DA	ND	0.098	0.027	0.027	1	13252-13-6		08/11/2022 11:30
PFBS	ND	0.086	0.026	0.026	1	375-73-5		08/11/2022 11:30
PFHxA	0.056 J	0.098	0.027	0.027	1	307-24-4		08/11/2022 11:30
4:2 FTS	ND	0.091	0.023	0.023	1	757124-72-4		08/11/2022 11:30
PFPeS	ND	0.092	0.023	0.023	1	2706-91-4		08/11/2022 11:30
PFHpA	0.050 J	0.098	0.034	0.034	1	375-85-9		08/11/2022 11:30
DONA	ND	0.092	0.035	0.035	1	919005-14-4		08/11/2022 11:30
PFHxS	ND	0.089	0.021	0.021	1	355-46-4		08/11/2022 11:30
PFOA	0.051 J	0.098	0.030	0.030	1	335-67-1		08/11/2022 11:30
6:2 FTS	ND	0.093	0.040	0.040	1	27619-97-2		08/11/2022 11:30
PFHpS	ND	0.093	0.027	0.027	1	375-92-8		08/11/2022 11:30
PFNA	0.041 J	0.098	0.030	0.030	1	375-95-1		08/11/2022 11:30
PFOSAm	ND	0.098	0.029	0.029	1	754-91-6		08/11/2022 11:30
PFOS	0.17	0.090	0.029	0.029	1	1763-23-1		08/11/2022 11:30
MeFOSA	ND	0.098	0.027	0.027	1	31506-32-8		08/11/2022 11:30
PFDA	0.049 J	0.098	0.022	0.022	1	335-76-2		08/11/2022 11:30
EtFOSAm	ND	0.098	0.025	0.025	1	4151-50-2		08/11/2022 11:30
8:2 FTS	1.3	0.094	0.043	0.043	1	39108-34-4		08/11/2022 11:30
9-CI-PF3ON	ND	0.091	0.025	0.025	1	756426-58-1		08/11/2022 11:30
PFNS	ND	0.094	0.034	0.034	1	68259-12-1		08/11/2022 11:30
PFUnDA	ND	0.098	0.029	0.029	1	2058-94-8		08/11/2022 11:30
NMeFOSAA	ND	0.098	0.027	0.027	1	2355-31-9		08/11/2022 11:30
NEtFOSAA	ND	0.098	0.039	0.039	1	2991-50-6		08/11/2022 11:30
PFDS	ND	0.094	0.028	0.028	1	335-77-3		08/11/2022 11:30
PFDOA	ND	0.098	0.032	0.032	1	307-55-1		08/11/2022 11:30
MeFOSE	ND	0.098	0.030	0.030	1	24448-09-7		08/11/2022 11:30
EtFOSE	ND	0.098	0.031	0.031	1	1691-99-2		08/11/2022 11:30
11-CI-PF3OUdS	ND	0.092	0.025	0.025	1	763051-92-9		08/11/2022 11:30
PFTTrDA	ND	0.098	0.031	0.031	1	72629-94-8		08/11/2022 11:30
PFDoS	ND	0.094	0.025	0.025	1	79780-39-5		08/11/2022 11:30
PFTDA	ND	0.098	0.033	0.033	1	376-06-7		08/11/2022 11:30

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Building B-HA01(0-6)
 Lab Sample ID 10616212031
 Lab File ID B220811A_008
 Matrix Soil
 Collected 07/06/2022 14:35
 Received 07/08/2022 18:45
 Extraction Date 08/01/2022 12:25

Total Amount Extracted 5.12g
 Ical ID 220810B02
 CCal File B220811A_005
 Ending CCal File B220811A_017
 Blank File B220811C_044

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.98	1.2	127	50-150		08/11/2022 11:30
13C4 PFOA	0.98	1.2	122	50-150		08/11/2022 11:30
13C2 PFDA	0.98	1.3	132	50-150		08/11/2022 11:30
13C4 PFOS	0.93	1.2	128	50-150		08/11/2022 11:30

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.98	0.97	99	50-150		08/11/2022 11:30
13C5 PFPeA	0.98	0.96	99	50-150		08/11/2022 11:30
13C3 PFBS	0.91	0.92	102	50-150		08/11/2022 11:30
13C2 4:2FTS	0.91	0.90	99	50-150		08/11/2022 11:30
13C5 PFHxA	0.98	0.97	100	50-150		08/11/2022 11:30
13C4 PFHpA	0.98	0.94	97	50-150		08/11/2022 11:30
13C3 PFHxS	0.92	0.89	96	50-150		08/11/2022 11:30
13C2 6:2FTS	0.93	0.92	100	50-150		08/11/2022 11:30
13C8 PFOA	0.98	0.97	99	50-150		08/11/2022 11:30
13C9 PFNA	0.98	0.96	98	50-150		08/11/2022 11:30
13C8 PFOS	0.93	0.98	105	50-150		08/11/2022 11:30
13C2 8:2FTS	0.94	0.88	95	50-150		08/11/2022 11:30
13C6 PFDA	0.98	1.1	108	50-150		08/11/2022 11:30
d3-MeFOSAA	0.98	0.95	98	50-150		08/11/2022 11:30
13C8 PFOSA	0.98	0.94	97	50-150		08/11/2022 11:30
d5-EtFOSAA	0.98	1.0	106	50-150		08/11/2022 11:30
13C7 PFUdA	0.98	1.1	109	50-150		08/11/2022 11:30
13C2 PFDaA	0.98	1.0	108	50-150		08/11/2022 11:30
13C2 PFTeDA	0.98	1.1	111	50-150		08/11/2022 11:30
13C3 HFPO-DA	0.98	1.0	104	50-150		08/11/2022 11:30
d7-N-MeFOSE	0.98	0.37	38	10-150		08/11/2022 11:30
d9-N-EtFOSE	0.98	0.38	38	10-150		08/11/2022 11:30
d3-N-MeFOSA	0.98	0.68	70	10-150		08/11/2022 11:30
d5-N-EtFOSA	0.98	0.51	52	10-150		08/11/2022 11:30

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Building B-HA01(0-6)
 Lab Sample ID 10616212031
 Lab File ID B220811A_008
 Matrix Soil
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 Received 07/08/2022 18:45
 Extraction Date 08/01/2022 12:25

Total Amount Extracted 5.12g
 Ical ID 220810B02
 CCal File B220811A_005
 Ending CCal File B220811A_017
 Blank File B220811C_044

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.82	5.77	28		08/11/2022 11:30
13C4 PFOA	N/A	N/A	7.09	7.07	31		08/11/2022 11:30
13C2 PFDA	N/A	N/A	8.39	8.39	27		08/11/2022 11:30
13C4 PFOS	N/A	N/A	8.86	8.88	18		08/11/2022 11:30

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.18	4.23	18		08/11/2022 11:30
13C5 PFPeA	N/A	N/A	5.12	5.10	21		08/11/2022 11:30
13C3 PFBS	N/A	N/A	6.05	6.02	16		08/11/2022 11:30
13C2 4:2FTS	N/A	N/A	5.55	5.51	84		08/11/2022 11:30
13C5 PFHxA	N/A	N/A	5.82	5.78	22		08/11/2022 11:30
13C4 PFHpA	N/A	N/A	6.46	6.42	18		08/11/2022 11:30
13C3 PFHxS	N/A	N/A	7.49	7.47	19		08/11/2022 11:30
13C2 6:2FTS	N/A	N/A	6.76	6.73	17		08/11/2022 11:30
13C8 PFOA	N/A	N/A	7.09	7.06	26		08/11/2022 11:30
13C9 PFNA	N/A	N/A	7.74	7.71	28		08/11/2022 11:30
13C8 PFOS	N/A	N/A	8.86	8.86	12		08/11/2022 11:30
13C2 8:2FTS	N/A	N/A	8.02	8.00	20		08/11/2022 11:30
13C6 PFDA	N/A	N/A	8.39	8.38	18		08/11/2022 11:30
d3-MeFOSAA	N/A	N/A	8.25	8.25	24		08/11/2022 11:30
13C8 PFOSA	N/A	N/A	10.38	10.42	11		08/11/2022 11:30
d5-EtFOSAA	N/A	N/A	8.54	8.54	11		08/11/2022 11:30
13C7 PFUdA	N/A	N/A	9.06	9.07	23		08/11/2022 11:30
13C2 PFDoA	N/A	N/A	9.72	9.71	14		08/11/2022 11:30
13C2 PFTeDA	N/A	N/A	11.02	11.02	12		08/11/2022 11:30
13C3 HFPO-DA	N/A	N/A	6.08	6.04	15		08/11/2022 11:30
d7-N-MeFOSE	N/A	N/A	12.42	12.44	44		08/11/2022 11:30
d9-N-EtFOSE	N/A	N/A	12.89	12.88	37		08/11/2022 11:30
d3-N-MeFOSA	N/A	N/A	12.63	12.65	98		08/11/2022 11:30
d5-N-EtFOSA	N/A	N/A	13.05	13.07	60		08/11/2022 11:30

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Building B-HA01(0-6)
 Lab Sample ID 10616212031
 Lab File ID B220811A_008
 Matrix Soil
 Collected 07/06/2022 14:35
 Received 07/08/2022 18:45
 Extraction Date 08/01/2022 12:25

Total Amount Extracted 5.12g
 Ical ID 220810B02
 CCal File B220811A_005
 Ending CCal File B220811A_017
 Blank File B220811C_044

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.18	4.23	ND		08/11/2022 11:30
PFPeA	N/A	N/A	5.13	5.15	20	J	08/11/2022 11:30
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/11/2022 11:30
PFBS	0.45	0.50	6.06	6.02	ND		08/11/2022 11:30
PFHxA	0.08	0.08	5.82	5.81	11	J	08/11/2022 11:30
4:2 FTS	0.00	0.83	0.00	5.54	ND		08/11/2022 11:30
PFPeS	0.00	0.44	0.00	6.79	ND		08/11/2022 11:30
PFHpA	0.27	0.29	6.46	6.44	21	J	08/11/2022 11:30
DONA	0.00	0.55	0.00	6.67	ND		08/11/2022 11:30
PFHxS	0.51	0.36	7.50	7.49	ND		08/11/2022 11:30
PFOA	0.46	0.41	7.10	7.08	10	J	08/11/2022 11:30
6:2 FTS	0.75	0.94	6.77	6.74	ND		08/11/2022 11:30
PFHpS	0.00	0.33	0.00	8.20	ND		08/11/2022 11:30
PFNA	0.13	0.14	7.74	7.73	23	J	08/11/2022 11:30
PFOSAm	N/A	N/A	10.38	10.44	ND		08/11/2022 11:30
PFOS	0.42	0.41	8.88	8.90	71		08/11/2022 11:30
MeFOSA	0.00	0.62	0.00	12.69	ND		08/11/2022 11:30
PFDA	0.18	0.16	8.40	8.40	26	J	08/11/2022 11:30
EtFOSAm	0.00	0.49	0.00	13.10	ND		08/11/2022 11:30
8:2 FTS	0.88	0.82	8.02	8.02	14		08/11/2022 11:30
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/11/2022 11:30
PFNS	0.00	0.51	0.00	9.58	ND		08/11/2022 11:30
PFUnDA	0.13	0.12	9.06	9.05	ND		08/11/2022 11:30
NMeFOSAA	0.00	0.82	0.00	8.26	ND		08/11/2022 11:30
NEtFOSAA	0.60	0.73	8.55	8.55	ND		08/11/2022 11:30
PFDS	0.35	0.36	10.20	10.19	ND		08/11/2022 11:30
PFDOA	0.19	0.18	9.73	9.72	ND		08/11/2022 11:30
MeFOSE	N/A	N/A	0.00	12.45	ND		08/11/2022 11:30
EtFOSE	0.00	0.00	12.93	12.92	ND		08/11/2022 11:30
11-CI-PF3OUdS	0.00	0.02	0.00	10.66	ND		08/11/2022 11:30
PFTTrDA	0.18	0.13	10.38	10.37	ND		08/11/2022 11:30
PFDoS	0.00	0.49	0.00	11.43	ND		08/11/2022 11:30
PFTDA	0.30	0.22	11.03	11.02	ND		08/11/2022 11:30

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-ERB-01
 Lab Sample ID 10616212032
 Lab File ID B220806A_010
 Matrix Water
 Collected 07/06/2022 08:40
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 259mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Compound	Concentration (ng/L)	QL (ng/L)	RL (ng/L)	MDL (ng/L)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	1.9	0.43	0.43	1	375-22-4	WIB	08/06/2022 07:11
PFPeA	ND	1.9	0.42	0.42	1	2706-90-3	WIB	08/06/2022 07:11
HFPO-DA	ND	1.9	0.51	0.51	1	13252-13-6		08/06/2022 07:11
PFBS	ND	1.7	0.46	0.46	1	375-73-5	WIB	08/06/2022 07:11
PFHxA	ND	1.9	0.42	0.42	1	307-24-4	WIB	08/06/2022 07:11
4:2 FTS	ND	1.8	0.54	0.54	1	757124-72-4		08/06/2022 07:11
PFPeS	ND	1.8	0.46	0.46	1	2706-91-4		08/06/2022 07:11
PFHpA	ND	1.9	0.53	0.53	1	375-85-9		08/06/2022 07:11
DONA	ND	1.8	0.50	0.50	1	919005-14-4		08/06/2022 07:11
PFHxS	ND	1.8	0.49	0.49	1	355-46-4	WIB	08/06/2022 07:11
PFOA	ND	1.9	0.56	0.56	1	335-67-1	WIB	08/06/2022 07:11
6:2 FTS	ND	1.8	0.62	0.62	1	27619-97-2	WIB	08/06/2022 07:11
PFHpS	ND	1.8	0.40	0.40	1	375-92-8		08/06/2022 07:11
PFNA	ND	1.9	0.71	0.71	1	375-95-1		08/06/2022 07:11
PFOSAm	ND	1.9	0.79	0.79	1	754-91-6	WIB	08/06/2022 07:11
PFOS	ND	1.8	0.53	0.53	1	1763-23-1	WIB	08/06/2022 07:11
MeFOSA	ND	1.9	0.49	0.49	1	31506-32-8	WIB	08/06/2022 07:11
PFDA	ND	1.9	0.54	0.54	1	335-76-2		08/06/2022 07:11
EtFOSAm	ND	1.9	0.59	0.59	1	4151-50-2		08/06/2022 07:11
8:2 FTS	ND	1.9	0.63	0.63	1	39108-34-4		08/06/2022 07:11
9-CI-PF3ON	ND	1.8	0.29	0.29	1	756426-58-1		08/06/2022 07:11
PFNS	ND	1.9	0.43	0.43	1	68259-12-1		08/06/2022 07:11
PFUnDA	ND	1.9	0.52	0.52	1	2058-94-8		08/06/2022 07:11
NMeFOSAA	ND	1.9	0.42	0.42	1	2355-31-9		08/06/2022 07:11
NEtFOSAA	ND	1.9	0.53	0.53	1	2991-50-6		08/06/2022 07:11
PFDS	ND	1.9	0.43	0.43	1	335-77-3		08/06/2022 07:11
PFDOA	ND	1.9	0.47	0.47	1	307-55-1		08/06/2022 07:11
MeFOSE	ND	1.9	0.32	0.32	1	24448-09-7		08/06/2022 07:11
EtFOSE	ND	1.9	0.48	0.48	1	1691-99-2		08/06/2022 07:11
11-CI-PF3OUdS	ND	1.8	0.42	0.42	1	763051-92-9		08/06/2022 07:11
PFTTrDA	ND	1.9	0.60	0.60	1	72629-94-8		08/06/2022 07:11
PFDoS	ND	1.9	0.44	0.44	1	79780-39-5		08/06/2022 07:11
PFTDA	ND	1.9	0.46	0.46	1	376-06-7		08/06/2022 07:11

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Sample Analysis Summary
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Client Sample ID PR-ERB-01
 Lab Sample ID 10616212032
 Lab File ID B220806A_010
 Matrix Water
 Collected 07/06/2022 08:40
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Total Amount Extracted 259mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Injection Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	19	25	130	50-150		08/06/2022 07:11
13C4 PFOA	19	23	120	50-150		08/06/2022 07:11
13C2 PFDA	19	22	115	50-150		08/06/2022 07:11
13C4 PFOS	18	26	140	50-150		08/06/2022 07:11

Extracted Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	19	20	105	25-150		08/06/2022 07:11
13C5 PFPeA	19	21	107	25-150		08/06/2022 07:11
13C3 PFBS	18	19	104	25-150		08/06/2022 07:11
13C2 4:2FTS	18	20	110	25-150		08/06/2022 07:11
13C5 PFHxA	19	21	109	25-150		08/06/2022 07:11
13C4 PFHpA	19	21	111	25-150		08/06/2022 07:11
13C3 PFHxS	18	19	104	25-150		08/06/2022 07:11
13C2 6:2FTS	18	21	112	25-150		08/06/2022 07:11
13C8 PFOA	19	20	103	25-150		08/06/2022 07:11
13C9 PFNA	19	20	105	25-150		08/06/2022 07:11
13C8 PFOS	18	22	119	25-150		08/06/2022 07:11
13C2 8:2FTS	18	21	112	25-150		08/06/2022 07:11
13C6 PFDA	19	26	135	25-150		08/06/2022 07:11
d3-MeFOSAA	19	17	90	25-150		08/06/2022 07:11
13C8 PFOSA	19	18	94	25-150		08/06/2022 07:11
d5-EtFOSAA	19	17	88	25-150		08/06/2022 07:11
13C7 PFUdA	19	23	119	25-150		08/06/2022 07:11
13C2 PFDoA	19	24	124	25-150		08/06/2022 07:11
13C2 PFTeDA	19	15	78	25-150		08/06/2022 07:11
13C3 HFPO-DA	19	20	103	25-150		08/06/2022 07:11
d7-N-MeFOSE	19	16	82	10-150		08/06/2022 07:11
d9-N-EtFOSE	19	16	85	10-150		08/06/2022 07:11
d3-N-MeFOSA	19	13	67	10-150		08/06/2022 07:11
d5-N-EtFOSA	19	10	52	10-150		08/06/2022 07:11

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 Ical ID 220803A02
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 Ending CCal File B220806A_015
 Blank File B220806A_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.82	5.80	16		08/06/2022 07:11
13C4 PFOA	N/A	N/A	7.08	7.07	20		08/06/2022 07:11
13C2 PFDA	N/A	N/A	8.41	8.39	21		08/06/2022 07:11
13C4 PFOS	N/A	N/A	8.90	8.88	20		08/06/2022 07:11

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.30	28		08/06/2022 07:11
13C5 PFPeA	N/A	N/A	5.16	5.15	28		08/06/2022 07:11
13C3 PFBS	N/A	N/A	6.06	6.05	22		08/06/2022 07:11
13C2 4:2FTS	N/A	N/A	5.56	5.54	11		08/06/2022 07:11
13C5 PFHxA	N/A	N/A	5.82	5.80	15		08/06/2022 07:11
13C4 PFHpA	N/A	N/A	6.45	6.43	24		08/06/2022 07:11
13C3 PFHxS	N/A	N/A	7.50	7.49	18		08/06/2022 07:11
13C2 6:2FTS	N/A	N/A	6.75	6.74	13		08/06/2022 07:11
13C8 PFOA	N/A	N/A	7.08	7.07	22		08/06/2022 07:11
13C9 PFNA	N/A	N/A	7.74	7.72	24		08/06/2022 07:11
13C8 PFOS	N/A	N/A	8.90	8.88	23		08/06/2022 07:11
13C2 8:2FTS	N/A	N/A	8.02	8.01	12		08/06/2022 07:11
13C6 PFDA	N/A	N/A	8.41	8.39	13		08/06/2022 07:11
d3-MeFOSAA	N/A	N/A	8.26	8.25	21		08/06/2022 07:11
13C8 PFOSA	N/A	N/A	10.66	10.61	18		08/06/2022 07:11
d5-EtFOSAA	N/A	N/A	8.56	8.54	14		08/06/2022 07:11
13C7 PFUdA	N/A	N/A	9.09	9.07	19		08/06/2022 07:11
13C2 PFDoA	N/A	N/A	9.77	9.74	13		08/06/2022 07:11
13C2 PFTeDA	N/A	N/A	11.10	11.07	10		08/06/2022 07:11
13C3 HFPO-DA	N/A	N/A	6.07	6.06	14		08/06/2022 07:11
d7-N-MeFOSE	N/A	N/A	12.48	12.45	52		08/06/2022 07:11
d9-N-EtFOSE	N/A	N/A	12.95	12.92	59		08/06/2022 07:11
d3-N-MeFOSA	N/A	N/A	12.69	12.66	10		08/06/2022 07:11
d5-N-EtFOSA	N/A	N/A	13.10	13.08	65		08/06/2022 07:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-ERB-01
 Lab Sample ID 10616212032
 Lab File ID B220806A_010
 Matrix Water
 Collected 07/06/2022 08:40
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 259mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.32	4.31	ND		08/06/2022 07:11
PFPeA	N/A	N/A	5.16	5.15	ND		08/06/2022 07:11
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/06/2022 07:11
PFBS	0.50	0.45	6.07	6.06	ND		08/06/2022 07:11
PFHxA	0.06	0.08	5.82	5.81	ND		08/06/2022 07:11
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/06/2022 07:11
PFPeS	0.00	0.44	0.00	6.79	ND		08/06/2022 07:11
PFHpA	0.37	0.35	6.46	6.44	ND		08/06/2022 07:11
DONA	0.00	0.52	0.00	6.67	ND		08/06/2022 07:11
PFHxS	0.47	0.37	7.51	7.49	ND		08/06/2022 07:11
PFOA	0.58	0.41	7.09	7.08	ND		08/06/2022 07:11
6:2 FTS	0.71	0.83	6.75	6.74	ND		08/06/2022 07:11
PFHpS	0.00	0.36	0.00	8.20	ND		08/06/2022 07:11
PFNA	0.29	0.14	7.75	7.73	ND		08/06/2022 07:11
PFOSAm	N/A	N/A	10.67	10.61	ND		08/06/2022 07:11
PFOS	0.54	0.38	8.91	8.90	ND		08/06/2022 07:11
MeFOSA	0.00	0.55	0.00	12.69	ND		08/06/2022 07:11
PFDA	0.00	0.18	0.00	8.40	ND		08/06/2022 07:11
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/06/2022 07:11
8:2 FTS	0.00	0.99	0.00	8.02	ND		08/06/2022 07:11
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/06/2022 07:11
PFNS	0.00	0.51	0.00	9.58	ND		08/06/2022 07:11
PFUnDA	0.00	0.17	0.00	9.08	ND		08/06/2022 07:11
NMeFOSAA	0.00	0.86	0.00	8.26	ND		08/06/2022 07:11
NEtFOSAA	0.00	0.66	0.00	8.55	ND		08/06/2022 07:11
PFDS	0.00	0.38	0.00	10.24	ND		08/06/2022 07:11
PFDOA	0.00	0.18	0.00	9.75	ND		08/06/2022 07:11
MeFOSE	N/A	N/A	0.00	12.49	ND		08/06/2022 07:11
EtFOSE	0.00	0.00	0.00	12.96	ND		08/06/2022 07:11
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/06/2022 07:11
PFTTrDA	0.00	0.14	0.00	10.42	ND		08/06/2022 07:11
PFDoS	0.00	0.48	0.00	11.48	ND		08/06/2022 07:11
PFTDA	0.00	0.32	0.00	11.07	ND		08/06/2022 07:11

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Decon-01
 Lab Sample ID 10616212033
 Lab File ID B220806A_011
 Matrix Water
 Collected 07/06/2022 09:55
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 259mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Compound	Concentration (ng/L)	QL (ng/L)	RL (ng/L)	MDL (ng/L)	Dil.	CAS No.	Qual.	Analyzed
PFBA	9.2	1.9	0.43	0.43	1	375-22-4		08/06/2022 07:31
PFPeA	1.3 J	1.9	0.42	0.42	1	2706-90-3		08/06/2022 07:31
HFPO-DA	ND	1.9	0.51	0.51	1	13252-13-6		08/06/2022 07:31
PFBS	0.98 J	1.7	0.46	0.46	1	375-73-5		08/06/2022 07:31
PFHxA	1.4 J	1.9	0.42	0.42	1	307-24-4		08/06/2022 07:31
4:2 FTS	ND	1.8	0.54	0.54	1	757124-72-4		08/06/2022 07:31
PFPeS	ND	1.8	0.46	0.46	1	2706-91-4		08/06/2022 07:31
PFHpA	0.97 J	1.9	0.53	0.53	1	375-85-9		08/06/2022 07:31
DONA	ND	1.8	0.50	0.50	1	919005-14-4		08/06/2022 07:31
PFHxS	ND	1.8	0.49	0.49	1	355-46-4		08/06/2022 07:31
PFOA	1.2 J	1.9	0.57	0.57	1	335-67-1		08/06/2022 07:31
6:2 FTS	ND	1.8	0.62	0.62	1	27619-97-2		08/06/2022 07:31
PFHpS	ND	1.8	0.40	0.40	1	375-92-8		08/06/2022 07:31
PFNA	ND	1.9	0.72	0.72	1	375-95-1		08/06/2022 07:31
PFOSAm	ND	1.9	0.79	0.79	1	754-91-6		08/06/2022 07:31
PFOS	ND	1.8	0.53	0.53	1	1763-23-1		08/06/2022 07:31
MeFOSA	ND	1.9	0.49	0.49	1	31506-32-8		08/06/2022 07:31
PFDA	ND	1.9	0.55	0.55	1	335-76-2		08/06/2022 07:31
EtFOSAm	ND	1.9	0.59	0.59	1	4151-50-2		08/06/2022 07:31
8:2 FTS	ND	1.9	0.63	0.63	1	39108-34-4		08/06/2022 07:31
9-CI-PF3ON	ND	1.8	0.29	0.29	1	756426-58-1		08/06/2022 07:31
PFNS	ND	1.9	0.43	0.43	1	68259-12-1		08/06/2022 07:31
PFUnDA	ND	1.9	0.52	0.52	1	2058-94-8		08/06/2022 07:31
NMeFOSAA	ND	1.9	0.42	0.42	1	2355-31-9		08/06/2022 07:31
NEtFOSAA	ND	1.9	0.54	0.54	1	2991-50-6		08/06/2022 07:31
PFDS	ND	1.9	0.43	0.43	1	335-77-3		08/06/2022 07:31
PFDOA	ND	1.9	0.47	0.47	1	307-55-1		08/06/2022 07:31
MeFOSE	ND	1.9	0.32	0.32	1	24448-09-7		08/06/2022 07:31
EtFOSE	ND	1.9	0.48	0.48	1	1691-99-2		08/06/2022 07:31
11-CI-PF3OUdS	ND	1.8	0.42	0.42	1	763051-92-9		08/06/2022 07:31
PFTTrDA	ND	1.9	0.60	0.60	1	72629-94-8		08/06/2022 07:31
PFDoS	ND	1.9	0.44	0.44	1	79780-39-5		08/06/2022 07:31
PFTDA	ND	1.9	0.46	0.46	1	376-06-7		08/06/2022 07:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Decon-01
 Lab Sample ID 10616212033
 Lab File ID B220806A_011
 Matrix Water
 Collected 07/06/2022 09:55
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 259mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Injection Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	19	26	133	50-150		08/06/2022 07:31
13C4 PFOA	19	24	126	50-150		08/06/2022 07:31
13C2 PFDA	19	26	135	50-150		08/06/2022 07:31
13C4 PFOS	19	26	141	50-150		08/06/2022 07:31

Extracted Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	19	15	78	25-150		08/06/2022 07:31
13C5 PFPeA	19	19	98	25-150		08/06/2022 07:31
13C3 PFBS	18	20	109	25-150		08/06/2022 07:31
13C2 4:2FTS	18	47	260	25-150	R	08/06/2022 07:31
13C5 PFHxA	19	20	103	25-150		08/06/2022 07:31
13C4 PFHpA	19	25	131	25-150		08/06/2022 07:31
13C3 PFHxS	18	20	108	25-150		08/06/2022 07:31
13C2 6:2FTS	18	31	167	25-150	R	08/06/2022 07:31
13C8 PFOA	19	24	125	25-150		08/06/2022 07:31
13C9 PFNA	19	22	115	25-150		08/06/2022 07:31
13C8 PFOS	19	21	114	25-150		08/06/2022 07:31
13C2 8:2FTS	19	21	113	25-150		08/06/2022 07:31
13C6 PFDA	19	23	118	25-150		08/06/2022 07:31
d3-MeFOSAA	19	19	97	25-150		08/06/2022 07:31
13C8 PFOSA	19	9.2	48	25-150		08/06/2022 07:31
d5-EtFOSAA	19	17	89	25-150		08/06/2022 07:31
13C7 PFUdA	19	22	113	25-150		08/06/2022 07:31
13C2 PFDoA	19	17	88	25-150		08/06/2022 07:31
13C2 PFTeDA	19	13	67	25-150		08/06/2022 07:31
13C3 HFPO-DA	19	22	112	25-150		08/06/2022 07:31
d7-N-MeFOSE	19	4.1	21	10-150		08/06/2022 07:31
d9-N-EtFOSE	19	4.1	21	10-150		08/06/2022 07:31
d3-N-MeFOSA	19	0.077	0	10-150	R	08/06/2022 07:31
d5-N-EtFOSA	19	0.068	0	10-150	R	08/06/2022 07:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Decon-01
 Lab Sample ID 10616212033
 Lab File ID B220806A_011
 Matrix Water
 Collected 07/06/2022 09:55
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 259mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.81	5.80	25		08/06/2022 07:31
13C4 PFOA	N/A	N/A	7.08	7.07	22		08/06/2022 07:31
13C2 PFDA	N/A	N/A	8.41	8.39	27		08/06/2022 07:31
13C4 PFOS	N/A	N/A	8.90	8.88	17		08/06/2022 07:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	21		08/06/2022 07:31
13C5 PFPeA	N/A	N/A	5.15	5.15	18		08/06/2022 07:31
13C3 PFBS	N/A	N/A	6.06	6.05	77		08/06/2022 07:31
13C2 4:2FTS	N/A	N/A	5.55	5.54	28	R	08/06/2022 07:31
13C5 PFHxA	N/A	N/A	5.81	5.80	12		08/06/2022 07:31
13C4 PFHpA	N/A	N/A	6.44	6.43	18		08/06/2022 07:31
13C3 PFHxS	N/A	N/A	7.50	7.49	19		08/06/2022 07:31
13C2 6:2FTS	N/A	N/A	6.75	6.74	67	R	08/06/2022 07:31
13C8 PFOA	N/A	N/A	7.08	7.07	22		08/06/2022 07:31
13C9 PFNA	N/A	N/A	7.73	7.72	26		08/06/2022 07:31
13C8 PFOS	N/A	N/A	8.90	8.88	19		08/06/2022 07:31
13C2 8:2FTS	N/A	N/A	8.02	8.01	11		08/06/2022 07:31
13C6 PFDA	N/A	N/A	8.41	8.39	14		08/06/2022 07:31
d3-MeFOSAA	N/A	N/A	8.27	8.25	14		08/06/2022 07:31
13C8 PFOSA	N/A	N/A	10.66	10.61	17		08/06/2022 07:31
d5-EtFOSAA	N/A	N/A	8.56	8.54	12		08/06/2022 07:31
13C7 PFUdA	N/A	N/A	9.09	9.07	26		08/06/2022 07:31
13C2 PFDoA	N/A	N/A	9.78	9.74	11		08/06/2022 07:31
13C2 PFTeDA	N/A	N/A	11.10	11.07	13		08/06/2022 07:31
13C3 HFPO-DA	N/A	N/A	6.07	6.06	12		08/06/2022 07:31
d7-N-MeFOSE	N/A	N/A	12.47	12.45	51		08/06/2022 07:31
d9-N-EtFOSE	N/A	N/A	12.93	12.92	33		08/06/2022 07:31
d3-N-MeFOSA	N/A	N/A	12.69	12.66	62	R	08/06/2022 07:31
d5-N-EtFOSA	N/A	N/A	13.09	13.08	62	R	08/06/2022 07:31

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-Decon-01
 Lab Sample ID 10616212033
 Lab File ID B220806A_011
 Matrix Water
 Collected 07/06/2022 09:55
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 259mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	57		08/06/2022 07:31
PFPeA	N/A	N/A	5.16	5.15	60	J	08/06/2022 07:31
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/06/2022 07:31
PFBS	0.40	0.45	6.06	6.06	87	J	08/06/2022 07:31
PFHxA	0.07	0.08	5.82	5.81	88	J	08/06/2022 07:31
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/06/2022 07:31
PFPeS	0.34	0.44	6.79	6.79	ND		08/06/2022 07:31
PFHpA	0.32	0.35	6.45	6.44	25	J	08/06/2022 07:31
DONA	0.00	0.52	0.00	6.67	ND		08/06/2022 07:31
PFHxS	0.38	0.37	7.50	7.49	ND		08/06/2022 07:31
PFOA	0.41	0.41	7.08	7.08	11	J	08/06/2022 07:31
6:2 FTS	0.94	0.83	6.75	6.74	ND		08/06/2022 07:31
PFHpS	0.00	0.36	0.00	8.20	ND		08/06/2022 07:31
PFNA	0.14	0.14	7.74	7.73	ND		08/06/2022 07:31
PFOSAm	N/A	N/A	10.68	10.61	ND		08/06/2022 07:31
PFOS	0.32	0.38	8.83	8.90	ND		08/06/2022 07:31
MeFOSA	0.00	0.55	0.00	12.69	ND		08/06/2022 07:31
PFDA	0.14	0.18	8.42	8.40	ND		08/06/2022 07:31
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/06/2022 07:31
8:2 FTS	0.00	0.99	0.00	8.02	ND		08/06/2022 07:31
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/06/2022 07:31
PFNS	0.00	0.51	0.00	9.58	ND		08/06/2022 07:31
PFUnDA	0.00	0.17	0.00	9.08	ND		08/06/2022 07:31
NMeFOSAA	0.72	0.86	8.28	8.26	ND		08/06/2022 07:31
NEtFOSAA	0.00	0.66	0.00	8.55	ND		08/06/2022 07:31
PFDS	0.00	0.38	0.00	10.24	ND		08/06/2022 07:31
PFDOA	0.00	0.18	0.00	9.75	ND		08/06/2022 07:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/06/2022 07:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/06/2022 07:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/06/2022 07:31
PFTTrDA	0.00	0.14	0.00	10.42	ND		08/06/2022 07:31
PFDoS	0.00	0.48	0.00	11.48	ND		08/06/2022 07:31
PFTDA	0.00	0.32	0.00	11.07	ND		08/06/2022 07:31

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-FB-01
 Lab Sample ID 10616212034
 Lab File ID B220806A_012
 Matrix Water
 Collected 07/06/2022 10:00
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 256mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Compound	Concentration (ng/L)	QL (ng/L)	RL (ng/L)	MDL (ng/L)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	2.0	0.43	0.43	1	375-22-4		08/06/2022 07:51
PFPeA	ND	2.0	0.43	0.43	1	2706-90-3		08/06/2022 07:51
HFPO-DA	ND	2.0	0.52	0.52	1	13252-13-6		08/06/2022 07:51
PFBS	ND	1.7	0.46	0.46	1	375-73-5		08/06/2022 07:51
PFHxA	ND	2.0	0.43	0.43	1	307-24-4		08/06/2022 07:51
4:2 FTS	ND	1.8	0.54	0.54	1	757124-72-4		08/06/2022 07:51
PFPeS	ND	1.8	0.46	0.46	1	2706-91-4		08/06/2022 07:51
PFHpA	ND	2.0	0.54	0.54	1	375-85-9		08/06/2022 07:51
DONA	ND	1.8	0.50	0.50	1	919005-14-4		08/06/2022 07:51
PFHxS	ND	1.8	0.50	0.50	1	355-46-4		08/06/2022 07:51
PFOA	ND	2.0	0.57	0.57	1	335-67-1		08/06/2022 07:51
6:2 FTS	ND	1.9	0.63	0.63	1	27619-97-2		08/06/2022 07:51
PFHpS	ND	1.9	0.40	0.40	1	375-92-8		08/06/2022 07:51
PFNA	ND	2.0	0.72	0.72	1	375-95-1		08/06/2022 07:51
PFOSAm	ND	2.0	0.80	0.80	1	754-91-6		08/06/2022 07:51
PFOS	ND	1.8	0.53	0.53	1	1763-23-1		08/06/2022 07:51
MeFOSA	ND	2.0	0.50	0.50	1	31506-32-8		08/06/2022 07:51
PFDA	ND	2.0	0.55	0.55	1	335-76-2		08/06/2022 07:51
EtFOSAm	ND	2.0	0.59	0.59	1	4151-50-2		08/06/2022 07:51
8:2 FTS	ND	1.9	0.64	0.64	1	39108-34-4		08/06/2022 07:51
9-CI-PF3ON	ND	1.8	0.30	0.30	1	756426-58-1		08/06/2022 07:51
PFNS	ND	1.9	0.44	0.44	1	68259-12-1		08/06/2022 07:51
PFUnDA	ND	2.0	0.53	0.53	1	2058-94-8		08/06/2022 07:51
NMeFOSAA	ND	2.0	0.42	0.42	1	2355-31-9		08/06/2022 07:51
NEtFOSAA	ND	2.0	0.54	0.54	1	2991-50-6		08/06/2022 07:51
PFDS	ND	1.9	0.44	0.44	1	335-77-3		08/06/2022 07:51
PFDOA	ND	2.0	0.47	0.47	1	307-55-1		08/06/2022 07:51
MeFOSE	ND	2.0	0.32	0.32	1	24448-09-7		08/06/2022 07:51
EtFOSE	ND	2.0	0.48	0.48	1	1691-99-2		08/06/2022 07:51
11-CI-PF3OUdS	ND	1.8	0.43	0.43	1	763051-92-9		08/06/2022 07:51
PFTTrDA	ND	2.0	0.61	0.61	1	72629-94-8		08/06/2022 07:51
PFDoS	ND	1.9	0.45	0.45	1	79780-39-5		08/06/2022 07:51
PFTDA	ND	2.0	0.46	0.46	1	376-06-7		08/06/2022 07:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-FB-01
 Lab Sample ID 10616212034
 Lab File ID B220806A_012
 Matrix Water
 Collected 07/06/2022 10:00
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 256mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Injection Internal Standards

Compound	Known Conc. (ng/L)	Conc. Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	20	25	127	50-150		08/06/2022 07:51
13C4 PFOA	20	27	139	50-150		08/06/2022 07:51
13C2 PFDA	20	22	112	50-150		08/06/2022 07:51
13C4 PFOS	19	26	141	50-150		08/06/2022 07:51

Extracted Internal Standards

Compound	Known Conc. (ng/L)	Conc. Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	20	22	112	25-150		08/06/2022 07:51
13C5 PFPeA	20	22	115	25-150		08/06/2022 07:51
13C3 PFBS	18	20	108	25-150		08/06/2022 07:51
13C2 4:2FTS	18	21	114	25-150		08/06/2022 07:51
13C5 PFHxA	20	21	109	25-150		08/06/2022 07:51
13C4 PFHpA	20	21	109	25-150		08/06/2022 07:51
13C3 PFHxS	18	19	104	25-150		08/06/2022 07:51
13C2 6:2FTS	19	20	110	25-150		08/06/2022 07:51
13C8 PFOA	20	22	112	25-150		08/06/2022 07:51
13C9 PFNA	20	19	100	25-150		08/06/2022 07:51
13C8 PFOS	19	21	115	25-150		08/06/2022 07:51
13C2 8:2FTS	19	20	107	25-150		08/06/2022 07:51
13C6 PFDA	20	23	116	25-150		08/06/2022 07:51
d3-MeFOSAA	20	17	88	25-150		08/06/2022 07:51
13C8 PFOSA	20	15	77	25-150		08/06/2022 07:51
d5-EtFOSAA	20	18	92	25-150		08/06/2022 07:51
13C7 PFUdA	20	22	111	25-150		08/06/2022 07:51
13C2 PFDoA	20	20	100	25-150		08/06/2022 07:51
13C2 PFTeDA	20	19	95	25-150		08/06/2022 07:51
13C3 HFPO-DA	20	24	124	25-150		08/06/2022 07:51
d7-N-MeFOSE	20	8.5	43	10-150		08/06/2022 07:51
d9-N-EtFOSE	20	7.8	40	10-150		08/06/2022 07:51
d3-N-MeFOSA	20	1.5	8	10-150	R	08/06/2022 07:51
d5-N-EtFOSA	20	0.89	5	10-150	R	08/06/2022 07:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-FB-01	Total Amount Extracted	256mL
Lab Sample ID	10616212034	Ical ID	220803A02
Lab File ID	B220806A_012	CCal File	B220806A_003
Matrix	Water	Ending CCal File	B220806A_015
Collected	07/06/2022 10:00	Blank File	B220806A_005
Received	07/08/2022 18:45		
Extraction Date	07/28/2022 08:56		

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.81	5.80	20		08/06/2022 07:51
13C4 PFOA	N/A	N/A	7.08	7.07	25		08/06/2022 07:51
13C2 PFDA	N/A	N/A	8.41	8.39	14		08/06/2022 07:51
13C4 PFOS	N/A	N/A	8.90	8.88	17		08/06/2022 07:51

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	26		08/06/2022 07:51
13C5 PFPeA	N/A	N/A	5.15	5.15	33		08/06/2022 07:51
13C3 PFBS	N/A	N/A	6.06	6.05	27		08/06/2022 07:51
13C2 4:2FTS	N/A	N/A	5.55	5.54	98		08/06/2022 07:51
13C5 PFHxA	N/A	N/A	5.81	5.80	25		08/06/2022 07:51
13C4 PFHpA	N/A	N/A	6.45	6.43	23		08/06/2022 07:51
13C3 PFHxS	N/A	N/A	7.49	7.49	17		08/06/2022 07:51
13C2 6:2FTS	N/A	N/A	6.75	6.74	36		08/06/2022 07:51
13C8 PFOA	N/A	N/A	7.08	7.07	21		08/06/2022 07:51
13C9 PFNA	N/A	N/A	7.73	7.72	22		08/06/2022 07:51
13C8 PFOS	N/A	N/A	8.90	8.88	22		08/06/2022 07:51
13C2 8:2FTS	N/A	N/A	8.02	8.01	94		08/06/2022 07:51
13C6 PFDA	N/A	N/A	8.40	8.39	12		08/06/2022 07:51
d3-MeFOSAA	N/A	N/A	8.26	8.25	18		08/06/2022 07:51
13C8 PFOSA	N/A	N/A	10.66	10.61	20		08/06/2022 07:51
d5-EtFOSAA	N/A	N/A	8.56	8.54	10		08/06/2022 07:51
13C7 PFUdA	N/A	N/A	9.09	9.07	27		08/06/2022 07:51
13C2 PFDoA	N/A	N/A	9.78	9.74	14		08/06/2022 07:51
13C2 PFTeDA	N/A	N/A	11.11	11.07	11		08/06/2022 07:51
13C3 HFPO-DA	N/A	N/A	6.07	6.06	21		08/06/2022 07:51
d7-N-MeFOSE	N/A	N/A	12.49	12.45	63		08/06/2022 07:51
d9-N-EtFOSE	N/A	N/A	12.95	12.92	46		08/06/2022 07:51
d3-N-MeFOSA	N/A	N/A	12.70	12.66	51	R	08/06/2022 07:51
d5-N-EtFOSA	N/A	N/A	13.11	13.08	37	R	08/06/2022 07:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-FB-01	Total Amount Extracted	256mL
Lab Sample ID	10616212034	Ical ID	220803A02
Lab File ID	B220806A_012	CCal File	B220806A_003
Matrix	Water	Ending CCal File	B220806A_015
Collected	07/06/2022 10:00	Blank File	B220806A_005
Received	07/08/2022 18:45		
Extraction Date	07/28/2022 08:56		

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	ND		08/06/2022 07:51
PFPeA	N/A	N/A	5.16	5.15	ND		08/06/2022 07:51
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/06/2022 07:51
PFBS	0.38	0.45	6.06	6.06	ND		08/06/2022 07:51
PFHxA	0.07	0.08	5.82	5.81	ND		08/06/2022 07:51
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/06/2022 07:51
PFPeS	0.00	0.44	0.00	6.79	ND		08/06/2022 07:51
PFHpA	0.42	0.35	6.45	6.44	ND		08/06/2022 07:51
DONA	0.00	0.52	0.00	6.67	ND		08/06/2022 07:51
PFHxS	0.41	0.37	7.50	7.49	ND		08/06/2022 07:51
PFOA	0.33	0.41	7.08	7.08	ND		08/06/2022 07:51
6:2 FTS	0.97	0.83	6.74	6.74	ND		08/06/2022 07:51
PFHpS	0.00	0.36	0.00	8.20	ND		08/06/2022 07:51
PFNA	0.00	0.14	0.00	7.73	ND		08/06/2022 07:51
PFOSAm	N/A	N/A	10.66	10.61	ND		08/06/2022 07:51
PFOS	0.39	0.38	8.92	8.90	ND		08/06/2022 07:51
MeFOSA	0.00	0.55	0.00	12.69	ND		08/06/2022 07:51
PFDA	0.00	0.18	0.00	8.40	ND		08/06/2022 07:51
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/06/2022 07:51
8:2 FTS	0.00	0.99	0.00	8.02	ND		08/06/2022 07:51
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/06/2022 07:51
PFNS	0.00	0.51	0.00	9.58	ND		08/06/2022 07:51
PFUnDA	0.00	0.17	0.00	9.08	ND		08/06/2022 07:51
NMeFOSAA	0.00	0.86	0.00	8.26	ND		08/06/2022 07:51
NEtFOSAA	0.00	0.66	0.00	8.55	ND		08/06/2022 07:51
PFDS	0.00	0.38	0.00	10.24	ND		08/06/2022 07:51
PFDOA	0.00	0.18	0.00	9.75	ND		08/06/2022 07:51
MeFOSE	N/A	N/A	0.00	12.49	ND		08/06/2022 07:51
EtFOSE	0.00	0.00	0.00	12.96	ND		08/06/2022 07:51
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/06/2022 07:51
PFTTrDA	0.00	0.14	0.00	10.42	ND		08/06/2022 07:51
PFDoS	0.00	0.48	0.00	11.48	ND		08/06/2022 07:51
PFTDA	0.00	0.32	0.00	11.07	ND		08/06/2022 07:51

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-ERB-02
 Lab Sample ID 10616212035
 Lab File ID B220806A_013
 Matrix Water
 Collected 07/07/2022 15:30
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 262mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Compound	Concentration (ng/L)	QL (ng/L)	RL (ng/L)	MDL (ng/L)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	1.9	0.42	0.42	1	375-22-4		08/06/2022 08:11
PFPeA	ND	1.9	0.42	0.42	1	2706-90-3		08/06/2022 08:11
HFPO-DA	ND	1.9	0.51	0.51	1	13252-13-6		08/06/2022 08:11
PFBS	ND	1.7	0.45	0.45	1	375-73-5		08/06/2022 08:11
PFHxA	ND	1.9	0.42	0.42	1	307-24-4		08/06/2022 08:11
4:2 FTS	ND	1.8	0.53	0.53	1	757124-72-4		08/06/2022 08:11
PFPeS	ND	1.8	0.45	0.45	1	2706-91-4		08/06/2022 08:11
PFHpA	ND	1.9	0.53	0.53	1	375-85-9		08/06/2022 08:11
DONA	ND	1.8	0.49	0.49	1	919005-14-4		08/06/2022 08:11
PFHxS	ND	1.7	0.49	0.49	1	355-46-4		08/06/2022 08:11
PFOA	ND	1.9	0.56	0.56	1	335-67-1		08/06/2022 08:11
6:2 FTS	ND	1.8	0.62	0.62	1	27619-97-2		08/06/2022 08:11
PFHpS	ND	1.8	0.39	0.39	1	375-92-8		08/06/2022 08:11
PFNA	ND	1.9	0.71	0.71	1	375-95-1		08/06/2022 08:11
PFOSAm	ND	1.9	0.78	0.78	1	754-91-6		08/06/2022 08:11
PFOS	ND	1.8	0.52	0.52	1	1763-23-1		08/06/2022 08:11
MeFOSA	ND	1.9	0.49	0.49	1	31506-32-8		08/06/2022 08:11
PFDA	ND	1.9	0.54	0.54	1	335-76-2		08/06/2022 08:11
EtFOSAm	ND	1.9	0.58	0.58	1	4151-50-2		08/06/2022 08:11
8:2 FTS	ND	1.8	0.62	0.62	1	39108-34-4		08/06/2022 08:11
9-CI-PF3ON	ND	1.8	0.29	0.29	1	756426-58-1		08/06/2022 08:11
PFNS	ND	1.8	0.43	0.43	1	68259-12-1		08/06/2022 08:11
PFUnDA	ND	1.9	0.52	0.52	1	2058-94-8		08/06/2022 08:11
NMeFOSAA	ND	1.9	0.41	0.41	1	2355-31-9		08/06/2022 08:11
NEtFOSAA	ND	1.9	0.53	0.53	1	2991-50-6		08/06/2022 08:11
PFDS	ND	1.8	0.43	0.43	1	335-77-3		08/06/2022 08:11
PFDOA	ND	1.9	0.46	0.46	1	307-55-1		08/06/2022 08:11
MeFOSE	ND	1.9	0.31	0.31	1	24448-09-7		08/06/2022 08:11
EtFOSE	ND	1.9	0.47	0.47	1	1691-99-2		08/06/2022 08:11
11-CI-PF3OUdS	ND	1.8	0.42	0.42	1	763051-92-9		08/06/2022 08:11
PFTTrDA	ND	1.9	0.59	0.59	1	72629-94-8		08/06/2022 08:11
PFDoS	ND	1.8	0.44	0.44	1	79780-39-5		08/06/2022 08:11
PFTDA	ND	1.9	0.45	0.45	1	376-06-7		08/06/2022 08:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-ERB-02
 Lab Sample ID 10616212035
 Lab File ID B220806A_013
 Matrix Water
 Collected 07/07/2022 15:30
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 262mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Injection Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	19	23	122	50-150		08/06/2022 08:11
13C4 PFOA	19	22	115	50-150		08/06/2022 08:11
13C2 PFDA	19	26	136	50-150		08/06/2022 08:11
13C4 PFOS	18	25	136	50-150		08/06/2022 08:11

Extracted Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	19	20	107	25-150		08/06/2022 08:11
13C5 PFPeA	19	21	111	25-150		08/06/2022 08:11
13C3 PFBS	18	19	104	25-150		08/06/2022 08:11
13C2 4:2FTS	18	18	103	25-150		08/06/2022 08:11
13C5 PFHxA	19	21	108	25-150		08/06/2022 08:11
13C4 PFHpA	19	21	108	25-150		08/06/2022 08:11
13C3 PFHxS	18	18	100	25-150		08/06/2022 08:11
13C2 6:2FTS	18	20	111	25-150		08/06/2022 08:11
13C8 PFOA	19	20	102	25-150		08/06/2022 08:11
13C9 PFNA	19	20	103	25-150		08/06/2022 08:11
13C8 PFOS	18	22	118	25-150		08/06/2022 08:11
13C2 8:2FTS	18	20	111	25-150		08/06/2022 08:11
13C6 PFDA	19	25	131	25-150		08/06/2022 08:11
d3-MeFOSAA	19	19	101	25-150		08/06/2022 08:11
13C8 PFOSA	19	18	95	25-150		08/06/2022 08:11
d5-EtFOSAA	19	18	94	25-150		08/06/2022 08:11
13C7 PFUdA	19	24	124	25-150		08/06/2022 08:11
13C2 PFDaA	19	25	132	25-150		08/06/2022 08:11
13C2 PFTeDA	19	18	92	25-150		08/06/2022 08:11
13C3 HFPO-DA	19	22	118	25-150		08/06/2022 08:11
d7-N-MeFOSE	19	14	75	10-150		08/06/2022 08:11
d9-N-EtFOSE	19	15	78	10-150		08/06/2022 08:11
d3-N-MeFOSA	19	13	71	10-150		08/06/2022 08:11
d5-N-EtFOSA	19	11	55	10-150		08/06/2022 08:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-ERB-02
 Lab Sample ID 10616212035
 Lab File ID B220806A_013
 Matrix Water
 Collected 07/07/2022 15:30
 Received 07/08/2022 18:45
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 262mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File B220806A_005

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.81	5.80	19		08/06/2022 08:11
13C4 PFOA	N/A	N/A	7.09	7.07	22		08/06/2022 08:11
13C2 PFDA	N/A	N/A	8.41	8.39	22		08/06/2022 08:11
13C4 PFOS	N/A	N/A	8.90	8.88	14		08/06/2022 08:11

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	24		08/06/2022 08:11
13C5 PFPeA	N/A	N/A	5.15	5.15	25		08/06/2022 08:11
13C3 PFBS	N/A	N/A	6.06	6.05	15		08/06/2022 08:11
13C2 4:2FTS	N/A	N/A	5.55	5.54	87		08/06/2022 08:11
13C5 PFHxA	N/A	N/A	5.82	5.80	18		08/06/2022 08:11
13C4 PFHpA	N/A	N/A	6.45	6.43	18		08/06/2022 08:11
13C3 PFHxS	N/A	N/A	7.50	7.49	23		08/06/2022 08:11
13C2 6:2FTS	N/A	N/A	6.75	6.74	31		08/06/2022 08:11
13C8 PFOA	N/A	N/A	7.08	7.07	26		08/06/2022 08:11
13C9 PFNA	N/A	N/A	7.74	7.72	27		08/06/2022 08:11
13C8 PFOS	N/A	N/A	8.90	8.88	26		08/06/2022 08:11
13C2 8:2FTS	N/A	N/A	8.03	8.01	30		08/06/2022 08:11
13C6 PFDA	N/A	N/A	8.41	8.39	17		08/06/2022 08:11
d3-MeFOSAA	N/A	N/A	8.27	8.25	43		08/06/2022 08:11
13C8 PFOSA	N/A	N/A	10.66	10.61	16		08/06/2022 08:11
d5-EtFOSAA	N/A	N/A	8.56	8.54	13		08/06/2022 08:11
13C7 PFUdA	N/A	N/A	9.09	9.07	32		08/06/2022 08:11
13C2 PFDoA	N/A	N/A	9.77	9.74	19		08/06/2022 08:11
13C2 PFTeDA	N/A	N/A	11.10	11.07	11		08/06/2022 08:11
13C3 HFPO-DA	N/A	N/A	6.07	6.06	13		08/06/2022 08:11
d7-N-MeFOSE	N/A	N/A	12.49	12.45	56		08/06/2022 08:11
d9-N-EtFOSE	N/A	N/A	12.95	12.92	60		08/06/2022 08:11
d3-N-MeFOSA	N/A	N/A	12.70	12.66	20		08/06/2022 08:11
d5-N-EtFOSA	N/A	N/A	13.11	13.08	64		08/06/2022 08:11

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-ERB-02	Total Amount Extracted	262mL
Lab Sample ID	10616212035	Ical ID	220803A02
Lab File ID	B220806A_013	CCal File	B220806A_003
Matrix	Water	Ending CCal File	B220806A_015
Collected	07/07/2022 15:30	Blank File	B220806A_005
Received	07/08/2022 18:45		
Extraction Date	07/28/2022 08:56		

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.30	4.31	ND		08/06/2022 08:11
PFPeA	N/A	N/A	5.16	5.15	ND		08/06/2022 08:11
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/06/2022 08:11
PFBS	0.54	0.45	6.07	6.06	ND		08/06/2022 08:11
PFHxA	0.08	0.08	5.83	5.81	ND		08/06/2022 08:11
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/06/2022 08:11
PFPeS	0.00	0.44	0.00	6.79	ND		08/06/2022 08:11
PFHpA	0.36	0.35	6.45	6.44	ND		08/06/2022 08:11
DONA	0.00	0.52	0.00	6.67	ND		08/06/2022 08:11
PFHxS	0.33	0.37	7.51	7.49	ND		08/06/2022 08:11
PFOA	0.36	0.41	7.10	7.08	ND		08/06/2022 08:11
6:2 FTS	1.10	0.83	6.76	6.74	ND		08/06/2022 08:11
PFHpS	0.00	0.36	0.00	8.20	ND		08/06/2022 08:11
PFNA	0.20	0.14	7.75	7.73	ND		08/06/2022 08:11
PFOSAm	N/A	N/A	10.68	10.61	ND		08/06/2022 08:11
PFOS	0.45	0.38	8.91	8.90	ND		08/06/2022 08:11
MeFOSA	0.00	0.55	0.00	12.69	ND		08/06/2022 08:11
PFDA	0.00	0.18	0.00	8.40	ND		08/06/2022 08:11
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/06/2022 08:11
8:2 FTS	0.00	0.99	0.00	8.02	ND		08/06/2022 08:11
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/06/2022 08:11
PFNS	0.00	0.51	0.00	9.58	ND		08/06/2022 08:11
PFUnDA	0.00	0.17	0.00	9.08	ND		08/06/2022 08:11
NMeFOSAA	0.91	0.86	8.28	8.26	ND		08/06/2022 08:11
NEtFOSAA	0.00	0.66	0.00	8.55	ND		08/06/2022 08:11
PFDS	0.00	0.38	0.00	10.24	ND		08/06/2022 08:11
PFDOA	0.00	0.18	0.00	9.75	ND		08/06/2022 08:11
MeFOSE	N/A	N/A	0.00	12.49	ND		08/06/2022 08:11
EtFOSE	0.00	0.00	0.00	12.96	ND		08/06/2022 08:11
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/06/2022 08:11
PFTTrDA	0.00	0.14	0.00	10.42	ND		08/06/2022 08:11
PFDoS	0.00	0.48	0.00	11.48	ND		08/06/2022 08:11
PFTDA	0.00	0.32	0.00	11.07	ND		08/06/2022 08:11

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKQJ
 Lab Sample ID BLANK-100046
 Lab File ID B220802A_024
 Matrix Soil
 Collected 07/19/2022 08:20
 Received 07/19/2022 08:20
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.10g
 Ical ID 220728A02
 CCal File B220802A_021
 Ending CCal File B220802A_032
 Blank File

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.098	0.028	0.028	1	375-22-4		08/02/2022 16:10
PFPeA	ND	0.098	0.028	0.028	1	2706-90-3		08/02/2022 16:10
HFPO-DA	ND	0.098	0.027	0.027	1	13252-13-6		08/02/2022 16:10
PFBS	ND	0.087	0.026	0.026	1	375-73-5		08/02/2022 16:10
PFHxA	ND	0.098	0.027	0.027	1	307-24-4		08/02/2022 16:10
4:2 FTS	ND	0.092	0.023	0.023	1	757124-72-4		08/02/2022 16:10
PFPeS	ND	0.092	0.024	0.024	1	2706-91-4		08/02/2022 16:10
PFHpA	ND	0.098	0.034	0.034	1	375-85-9		08/02/2022 16:10
DONA	ND	0.093	0.036	0.036	1	919005-14-4		08/02/2022 16:10
PFHxS	ND	0.089	0.021	0.021	1	355-46-4		08/02/2022 16:10
PFOA	ND	0.098	0.031	0.031	1	335-67-1		08/02/2022 16:10
6:2 FTS	ND	0.093	0.041	0.041	1	27619-97-2		08/02/2022 16:10
PFHpS	ND	0.093	0.027	0.027	1	375-92-8		08/02/2022 16:10
PFNA	ND	0.098	0.031	0.031	1	375-95-1		08/02/2022 16:10
PFOSAm	ND	0.098	0.029	0.029	1	754-91-6		08/02/2022 16:10
PFOS	ND	0.091	0.029	0.029	1	1763-23-1		08/02/2022 16:10
MeFOSA	ND	0.098	0.027	0.027	1	31506-32-8		08/02/2022 16:10
PFDA	ND	0.098	0.022	0.022	1	335-76-2		08/02/2022 16:10
EtFOSAm	ND	0.098	0.025	0.025	1	4151-50-2		08/02/2022 16:10
8:2 FTS	ND	0.094	0.043	0.043	1	39108-34-4		08/02/2022 16:10
9-CI-PF3ON	ND	0.091	0.025	0.025	1	756426-58-1		08/02/2022 16:10
PFNS	ND	0.094	0.034	0.034	1	68259-12-1		08/02/2022 16:10
PFUnDA	ND	0.098	0.030	0.030	1	2058-94-8		08/02/2022 16:10
NMeFOSAA	ND	0.098	0.028	0.028	1	2355-31-9		08/02/2022 16:10
NEtFOSAA	ND	0.098	0.039	0.039	1	2991-50-6		08/02/2022 16:10
PFDS	ND	0.095	0.028	0.028	1	335-77-3		08/02/2022 16:10
PFDOA	ND	0.098	0.032	0.032	1	307-55-1		08/02/2022 16:10
MeFOSE	ND	0.098	0.030	0.030	1	24448-09-7		08/02/2022 16:10
EtFOSE	ND	0.098	0.032	0.032	1	1691-99-2		08/02/2022 16:10
11-CI-PF3OUdS	ND	0.092	0.025	0.025	1	763051-92-9		08/02/2022 16:10
PFTTrDA	ND	0.098	0.031	0.031	1	72629-94-8		08/02/2022 16:10
PFDoS	ND	0.095	0.026	0.026	1	79780-39-5		08/02/2022 16:10
PFTDA	ND	0.098	0.034	0.034	1	376-06-7		08/02/2022 16:10

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKQJ
 Lab Sample ID BLANK-100046
 Lab File ID B220802A_024
 Matrix Soil
 Collected 07/19/2022 08:20
 Received 07/19/2022 08:20
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.10g
 Ical ID 220728A02
 CCal File B220802A_021
 Ending CCal File B220802A_032
 Blank File

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.98	0.92	94	50-150		08/02/2022 16:10
13C4 PFOA	0.98	1.1	107	50-150		08/02/2022 16:10
13C2 PFDA	0.98	0.95	97	50-150		08/02/2022 16:10
13C4 PFOS	0.94	0.92	98	50-150		08/02/2022 16:10

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.98	0.89	91	50-150		08/02/2022 16:10
13C5 PFPeA	0.98	0.91	93	50-150		08/02/2022 16:10
13C3 PFBS	0.91	0.86	94	50-150		08/02/2022 16:10
13C2 4:2FTS	0.92	0.80	87	50-150		08/02/2022 16:10
13C5 PFHxA	0.98	0.90	91	50-150		08/02/2022 16:10
13C4 PFHpA	0.98	0.82	84	50-150		08/02/2022 16:10
13C3 PFHxS	0.93	0.79	85	50-150		08/02/2022 16:10
13C2 6:2FTS	0.93	0.91	97	50-150		08/02/2022 16:10
13C8 PFOA	0.98	0.86	88	50-150		08/02/2022 16:10
13C9 PFNA	0.98	1.0	103	50-150		08/02/2022 16:10
13C8 PFOS	0.94	0.81	86	50-150		08/02/2022 16:10
13C2 8:2FTS	0.94	0.88	94	50-150		08/02/2022 16:10
13C6 PFDA	0.98	0.80	82	50-150		08/02/2022 16:10
d3-MeFOSAA	0.98	0.82	84	50-150		08/02/2022 16:10
13C8 PFOSA	0.98	0.80	82	50-150		08/02/2022 16:10
d5-EtFOSAA	0.98	0.86	87	50-150		08/02/2022 16:10
13C7 PFUdA	0.98	0.82	83	50-150		08/02/2022 16:10
13C2 PFDoA	0.98	0.86	88	50-150		08/02/2022 16:10
13C2 PFTeDA	0.98	0.85	86	50-150		08/02/2022 16:10
13C3 HFPO-DA	0.98	0.91	93	50-150		08/02/2022 16:10
d7-N-MeFOSE	0.98	0.78	79	20-150		08/02/2022 16:10
d9-N-EtFOSE	0.98	0.67	68	20-150		08/02/2022 16:10
d3-N-MeFOSA	0.98	0.82	84	20-150		08/02/2022 16:10
d5-N-EtFOSA	0.98	0.79	81	20-150		08/02/2022 16:10

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKQJ
 Lab Sample ID BLANK-100046
 Lab File ID B220802A_024
 Matrix Soil
 Collected 07/19/2022 08:20
 Received 07/19/2022 08:20
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.10g
 Ical ID 220728A02
 CCal File B220802A_021
 Ending CCal File B220802A_032
 Blank File

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.71	21		08/02/2022 16:10
13C4 PFOA	N/A	N/A	7.06	6.96	15		08/02/2022 16:10
13C2 PFDA	N/A	N/A	8.38	8.27	13		08/02/2022 16:10
13C4 PFOS	N/A	N/A	8.85	8.75	17		08/02/2022 16:10

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.31	4.38	25		08/02/2022 16:10
13C5 PFPeA	N/A	N/A	5.14	5.13	22		08/02/2022 16:10
13C3 PFBS	N/A	N/A	6.04	5.96	27		08/02/2022 16:10
13C2 4:2FTS	N/A	N/A	5.53	5.48	72		08/02/2022 16:10
13C5 PFHxA	N/A	N/A	5.80	5.73	16		08/02/2022 16:10
13C4 PFHpA	N/A	N/A	6.42	6.32	17		08/02/2022 16:10
13C3 PFHxS	N/A	N/A	7.47	7.47	22		08/02/2022 16:10
13C2 6:2FTS	N/A	N/A	6.73	6.73	25		08/02/2022 16:10
13C8 PFOA	N/A	N/A	7.06	6.94	17		08/02/2022 16:10
13C9 PFNA	N/A	N/A	7.71	7.61	21		08/02/2022 16:10
13C8 PFOS	N/A	N/A	8.85	8.80	28		08/02/2022 16:10
13C2 8:2FTS	N/A	N/A	8.00	7.94	91		08/02/2022 16:10
13C6 PFDA	N/A	N/A	8.38	8.32	12		08/02/2022 16:10
d3-MeFOSAA	N/A	N/A	8.24	8.19	13		08/02/2022 16:10
13C8 PFOSA	N/A	N/A	10.57	10.61	16		08/02/2022 16:10
d5-EtFOSAA	N/A	N/A	8.53	8.49	12		08/02/2022 16:10
13C7 PFUdA	N/A	N/A	9.05	9.00	21		08/02/2022 16:10
13C2 PFDoA	N/A	N/A	9.72	9.67	11		08/02/2022 16:10
13C2 PFTeDA	N/A	N/A	11.03	11.00	14		08/02/2022 16:10
13C3 HFPO-DA	N/A	N/A	6.05	5.97	14		08/02/2022 16:10
d7-N-MeFOSE	N/A	N/A	12.42	12.38	50		08/02/2022 16:10
d9-N-EtFOSE	N/A	N/A	12.88	12.85	42		08/02/2022 16:10
d3-N-MeFOSA	N/A	N/A	12.63	12.64	14		08/02/2022 16:10
d5-N-EtFOSA	N/A	N/A	13.04	13.01	58		08/02/2022 16:10

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKQJ
 Lab Sample ID BLANK-100046
 Lab File ID B220802A_024
 Matrix Soil
 Collected 07/19/2022 08:20
 Received 07/19/2022 08:20
 Extraction Date 07/19/2022 21:00

Total Amount Extracted 5.10g
 Ical ID 220728A02
 CCal File B220802A_021
 Ending CCal File B220802A_032
 Blank File

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	0.00	4.31	ND		08/02/2022 16:10
PFPeA	N/A	N/A	5.16	5.12	ND		08/02/2022 16:10
HFPO-DA	0.00	0.32	0.00	6.02	ND		08/02/2022 16:10
PFBS	0.00	0.45	0.00	5.99	ND		08/02/2022 16:10
PFHxA	0.00	0.07	0.00	5.75	ND		08/02/2022 16:10
4:2 FTS	0.00	0.83	0.00	5.49	ND		08/02/2022 16:10
PFPeS	0.00	0.40	0.00	6.73	ND		08/02/2022 16:10
PFHpA	0.00	0.33	0.00	6.39	ND		08/02/2022 16:10
DONA	0.00	0.50	0.00	6.62	ND		08/02/2022 16:10
PFHxS	0.00	0.41	0.00	7.43	ND		08/02/2022 16:10
PFOA	0.33	0.40	7.07	7.03	ND		08/02/2022 16:10
6:2 FTS	0.77	0.92	6.73	6.72	ND		08/02/2022 16:10
PFHpS	0.00	0.39	0.00	8.13	ND		08/02/2022 16:10
PFNA	0.00	0.13	0.00	7.67	ND		08/02/2022 16:10
PFOSAm	N/A	N/A	10.58	10.55	ND		08/02/2022 16:10
PFOS	0.61	0.33	8.87	8.81	ND		08/02/2022 16:10
MeFOSA	0.00	0.57	0.00	12.61	ND		08/02/2022 16:10
PFDA	0.00	0.19	0.00	8.34	ND		08/02/2022 16:10
EtFOSAm	0.00	0.55	0.00	13.03	ND		08/02/2022 16:10
8:2 FTS	0.00	0.96	0.00	7.95	ND		08/02/2022 16:10
9-CI-PF3ON	0.00	0.05	0.00	9.31	ND		08/02/2022 16:10
PFNS	0.00	0.52	0.00	9.52	ND		08/02/2022 16:10
PFUnDA	0.00	0.11	0.00	9.01	ND		08/02/2022 16:10
NMeFOSAA	0.00	0.86	0.00	8.19	ND		08/02/2022 16:10
NEtFOSAA	0.00	0.66	0.00	8.51	ND		08/02/2022 16:10
PFDS	0.00	0.32	0.00	10.16	ND		08/02/2022 16:10
PFDOA	0.00	0.17	0.00	9.69	ND		08/02/2022 16:10
MeFOSE	N/A	N/A	0.00	12.41	ND		08/02/2022 16:10
EtFOSE	0.00	0.00	0.00	12.89	ND		08/02/2022 16:10
11-CI-PF3OUdS	0.00	0.02	0.00	10.64	ND		08/02/2022 16:10
PFTTrDA	0.00	0.14	0.00	10.36	ND		08/02/2022 16:10
PFDoS	0.00	0.52	0.00	11.39	ND		08/02/2022 16:10
PFTDA	0.00	0.25	0.00	11.00	ND		08/02/2022 16:10

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKQK
 Lab Sample ID BLANK-100048
 Lab File ID B220804B_005
 Matrix Soil
 Collected 07/19/2022 08:22
 Received 07/19/2022 08:22
 Extraction Date 07/25/2022 16:00

Total Amount Extracted 5.00g
 Ical ID 220803A02
 CCal File B220804B_003
 Ending CCal File B220804B_015
 Blank File

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.10	0.028	0.028	1	375-22-4		08/05/2022 02:11
PFPeA	ND	0.10	0.029	0.029	1	2706-90-3		08/05/2022 02:11
HFPO-DA	ND	0.10	0.028	0.028	1	13252-13-6		08/05/2022 02:11
PFBS	ND	0.088	0.026	0.026	1	375-73-5		08/05/2022 02:11
PFHxA	ND	0.10	0.028	0.028	1	307-24-4		08/05/2022 02:11
4:2 FTS	ND	0.094	0.023	0.023	1	757124-72-4		08/05/2022 02:11
PFPeS	ND	0.094	0.024	0.024	1	2706-91-4		08/05/2022 02:11
PFHpA	ND	0.10	0.035	0.035	1	375-85-9		08/05/2022 02:11
DONA	ND	0.095	0.036	0.036	1	919005-14-4		08/05/2022 02:11
PFHxS	ND	0.091	0.022	0.022	1	355-46-4		08/05/2022 02:11
PFOA	ND	0.10	0.031	0.031	1	335-67-1		08/05/2022 02:11
6:2 FTS	ND	0.095	0.041	0.041	1	27619-97-2		08/05/2022 02:11
PFHpS	ND	0.095	0.028	0.028	1	375-92-8		08/05/2022 02:11
PFNA	ND	0.10	0.031	0.031	1	375-95-1		08/05/2022 02:11
PFOSAm	ND	0.10	0.029	0.029	1	754-91-6		08/05/2022 02:11
PFOS	ND	0.092	0.030	0.030	1	1763-23-1		08/05/2022 02:11
MeFOSA	ND	0.10	0.027	0.027	1	31506-32-8		08/05/2022 02:11
PFDA	ND	0.10	0.023	0.023	1	335-76-2		08/05/2022 02:11
EtFOSAm	ND	0.10	0.026	0.026	1	4151-50-2		08/05/2022 02:11
8:2 FTS	ND	0.096	0.044	0.044	1	39108-34-4		08/05/2022 02:11
9-CI-PF3ON	ND	0.093	0.025	0.025	1	756426-58-1		08/05/2022 02:11
PFNS	ND	0.096	0.035	0.035	1	68259-12-1		08/05/2022 02:11
PFUnDA	ND	0.10	0.030	0.030	1	2058-94-8		08/05/2022 02:11
NMeFOSAA	ND	0.10	0.028	0.028	1	2355-31-9		08/05/2022 02:11
NEtFOSAA	ND	0.10	0.040	0.040	1	2991-50-6		08/05/2022 02:11
PFDS	ND	0.096	0.028	0.028	1	335-77-3		08/05/2022 02:11
PFDOA	ND	0.10	0.033	0.033	1	307-55-1		08/05/2022 02:11
MeFOSE	ND	0.10	0.030	0.030	1	24448-09-7		08/05/2022 02:11
EtFOSE	ND	0.10	0.032	0.032	1	1691-99-2		08/05/2022 02:11
11-CI-PF3OUdS	ND	0.094	0.025	0.025	1	763051-92-9		08/05/2022 02:11
PFTTrDA	ND	0.10	0.032	0.032	1	72629-94-8		08/05/2022 02:11
PFDoS	ND	0.097	0.026	0.026	1	79780-39-5		08/05/2022 02:11
PFTDA	ND	0.10	0.034	0.034	1	376-06-7		08/05/2022 02:11

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	BLKQK	Total Amount Extracted	5.00g
Lab Sample ID	BLANK-100048	Ical ID	220803A02
Lab File ID	B220804B_005	CCal File	B220804B_003
Matrix	Soil	Ending CCal File	B220804B_015
Collected	07/19/2022 08:22	Blank File	
Received	07/19/2022 08:22		
Extraction Date	07/25/2022 16:00		

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	1.0	1.1	109	50-150		08/05/2022 02:11
13C4 PFOA	1.0	1.3	128	50-150		08/05/2022 02:11
13C2 PFDA	1.0	1.3	129	50-150		08/05/2022 02:11
13C4 PFOS	0.96	1.1	111	50-150		08/05/2022 02:11

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	1.0	0.97	97	50-150		08/05/2022 02:11
13C5 PFPeA	1.0	0.97	97	50-150		08/05/2022 02:11
13C3 PFBS	0.93	0.93	100	50-150		08/05/2022 02:11
13C2 4:2FTS	0.94	0.92	99	50-150		08/05/2022 02:11
13C5 PFHxA	1.0	1.0	101	50-150		08/05/2022 02:11
13C4 PFHpA	1.0	0.97	97	50-150		08/05/2022 02:11
13C3 PFHxS	0.95	0.92	97	50-150		08/05/2022 02:11
13C2 6:2FTS	0.95	0.93	98	50-150		08/05/2022 02:11
13C8 PFOA	1.0	0.99	99	50-150		08/05/2022 02:11
13C9 PFNA	1.0	0.98	98	50-150		08/05/2022 02:11
13C8 PFOS	0.96	1.0	107	50-150		08/05/2022 02:11
13C2 8:2FTS	0.96	1.2	127	50-150		08/05/2022 02:11
13C6 PFDA	1.0	1.1	106	50-150		08/05/2022 02:11
d3-MeFOSAA	1.0	0.99	99	50-150		08/05/2022 02:11
13C8 PFOSA	1.0	0.91	91	50-150		08/05/2022 02:11
d5-EtFOSAA	1.0	1.0	101	50-150		08/05/2022 02:11
13C7 PFUdA	1.0	1.0	104	50-150		08/05/2022 02:11
13C2 PFDoA	1.0	1.1	109	50-150		08/05/2022 02:11
13C2 PFTeDA	1.0	1.1	106	50-150		08/05/2022 02:11
13C3 HFPO-DA	1.0	0.99	99	50-150		08/05/2022 02:11
d7-N-MeFOSE	1.0	0.91	91	20-150		08/05/2022 02:11
d9-N-EtFOSE	1.0	0.84	84	20-150		08/05/2022 02:11
d3-N-MeFOSA	1.0	0.98	98	20-150		08/05/2022 02:11
d5-N-EtFOSA	1.0	0.98	98	20-150		08/05/2022 02:11

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	BLKQK	Total Amount Extracted	5.00g
Lab Sample ID	BLANK-100048	Ical ID	220803A02
Lab File ID	B220804B_005	CCal File	B220804B_003
Matrix	Soil	Ending CCal File	B220804B_015
Collected	07/19/2022 08:22	Blank File	
Received	07/19/2022 08:22		
Extraction Date	07/25/2022 16:00		

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.80	18		08/05/2022 02:11
13C4 PFOA	N/A	N/A	7.05	7.07	16		08/05/2022 02:11
13C2 PFDA	N/A	N/A	8.37	8.39	19		08/05/2022 02:11
13C4 PFOS	N/A	N/A	8.87	8.88	18		08/05/2022 02:11

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.30	4.30	26		08/05/2022 02:11
13C5 PFPeA	N/A	N/A	5.14	5.15	24		08/05/2022 02:11
13C3 PFBS	N/A	N/A	6.04	6.05	32		08/05/2022 02:11
13C2 4:2FTS	N/A	N/A	5.53	5.54	10		08/05/2022 02:11
13C5 PFHxA	N/A	N/A	5.79	5.80	17		08/05/2022 02:11
13C4 PFHpA	N/A	N/A	6.41	6.43	17		08/05/2022 02:11
13C3 PFHxS	N/A	N/A	7.47	7.49	18		08/05/2022 02:11
13C2 6:2FTS	N/A	N/A	6.72	6.74	15		08/05/2022 02:11
13C8 PFOA	N/A	N/A	7.05	7.07	23		08/05/2022 02:11
13C9 PFNA	N/A	N/A	7.70	7.72	20		08/05/2022 02:11
13C8 PFOS	N/A	N/A	8.87	8.88	22		08/05/2022 02:11
13C2 8:2FTS	N/A	N/A	7.99	8.01	48		08/05/2022 02:11
13C6 PFDA	N/A	N/A	8.37	8.39	18		08/05/2022 02:11
d3-MeFOSAA	N/A	N/A	8.23	8.25	11		08/05/2022 02:11
13C8 PFOSA	N/A	N/A	10.61	10.61	14		08/05/2022 02:11
d5-EtFOSAA	N/A	N/A	8.52	8.54	11		08/05/2022 02:11
13C7 PFUdA	N/A	N/A	9.05	9.07	18		08/05/2022 02:11
13C2 PFDoA	N/A	N/A	9.73	9.74	13		08/05/2022 02:11
13C2 PFTeDA	N/A	N/A	11.05	11.07	10		08/05/2022 02:11
13C3 HFPO-DA	N/A	N/A	6.05	6.06	15		08/05/2022 02:11
d7-N-MeFOSE	N/A	N/A	12.45	12.45	61		08/05/2022 02:11
d9-N-EtFOSE	N/A	N/A	12.92	12.92	58		08/05/2022 02:11
d3-N-MeFOSA	N/A	N/A	12.66	12.66	17		08/05/2022 02:11
d5-N-EtFOSA	N/A	N/A	13.08	13.08	79		08/05/2022 02:11

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	BLKQK	Total Amount Extracted	5.00g
Lab Sample ID	BLANK-100048	Ical ID	220803A02
Lab File ID	B220804B_005	CCal File	B220804B_003
Matrix	Soil	Ending CCal File	B220804B_015
Collected	07/19/2022 08:22	Blank File	
Received	07/19/2022 08:22		
Extraction Date	07/25/2022 16:00		

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	0.00	4.31	ND		08/05/2022 02:11
PFPeA	N/A	N/A	5.15	5.15	ND		08/05/2022 02:11
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/05/2022 02:11
PFBS	0.34	0.43	6.05	6.06	ND		08/05/2022 02:11
PFHxA	0.18	0.07	5.80	5.81	ND		08/05/2022 02:11
4:2 FTS	0.00	0.85	0.00	5.54	ND		08/05/2022 02:11
PFPeS	0.00	0.46	0.00	6.79	ND		08/05/2022 02:11
PFHpA	0.00	0.29	0.00	6.44	ND		08/05/2022 02:11
DONA	0.00	0.57	0.00	6.67	ND		08/05/2022 02:11
PFHxS	0.00	0.40	0.00	7.49	ND		08/05/2022 02:11
PFOA	0.00	0.40	0.00	7.08	ND		08/05/2022 02:11
6:2 FTS	0.99	0.97	6.72	6.74	ND		08/05/2022 02:11
PFHpS	0.00	0.36	0.00	8.20	ND		08/05/2022 02:11
PFNA	0.09	0.12	7.71	7.73	ND		08/05/2022 02:11
PFOSAm	N/A	N/A	0.00	10.61	ND		08/05/2022 02:11
PFOS	0.00	0.44	0.00	8.90	ND		08/05/2022 02:11
MeFOSA	0.00	0.51	0.00	12.69	ND		08/05/2022 02:11
PFDA	0.00	0.19	0.00	8.40	ND		08/05/2022 02:11
EtFOSAm	0.00	0.59	0.00	13.10	ND		08/05/2022 02:11
8:2 FTS	0.00	0.88	0.00	8.02	ND		08/05/2022 02:11
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/05/2022 02:11
PFNS	0.00	0.47	0.00	9.58	ND		08/05/2022 02:11
PFUnDA	0.00	0.15	0.00	9.08	ND		08/05/2022 02:11
NMeFOSAA	0.00	0.90	0.00	8.26	ND		08/05/2022 02:11
NEtFOSAA	0.00	0.71	0.00	8.55	ND		08/05/2022 02:11
PFDS	0.00	0.32	0.00	10.24	ND		08/05/2022 02:11
PFDOA	0.00	0.20	0.00	9.75	ND		08/05/2022 02:11
MeFOSE	N/A	N/A	0.00	12.49	ND		08/05/2022 02:11
EtFOSE	0.00	0.00	0.00	12.96	ND		08/05/2022 02:11
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/05/2022 02:11
PFTTrDA	0.00	0.16	0.00	10.42	ND		08/05/2022 02:11
PFDoS	0.00	0.48	0.00	11.48	ND		08/05/2022 02:11
PFTDA	0.00	0.30	0.00	11.07	ND		08/05/2022 02:11

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKTH
 Lab Sample ID BLANK-100300
 Lab File ID B220806A_005
 Matrix Water
 Collected 07/27/2022 18:02
 Received 07/27/2022 18:02
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 261mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File

Compound	Concentration (ng/L)	QL (ng/L)	RL (ng/L)	MDL (ng/L)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	1.9	0.42	0.42	1	375-22-4		08/06/2022 05:31
PFPeA	ND	1.9	0.42	0.42	1	2706-90-3		08/06/2022 05:31
HFPO-DA	ND	1.9	0.51	0.51	1	13252-13-6		08/06/2022 05:31
PFBS	ND	1.7	0.45	0.45	1	375-73-5		08/06/2022 05:31
PFHxA	ND	1.9	0.42	0.42	1	307-24-4		08/06/2022 05:31
4:2 FTS	ND	1.8	0.53	0.53	1	757124-72-4		08/06/2022 05:31
PFPeS	ND	1.8	0.45	0.45	1	2706-91-4		08/06/2022 05:31
PFHpA	ND	1.9	0.53	0.53	1	375-85-9		08/06/2022 05:31
DONA	ND	1.8	0.49	0.49	1	919005-14-4		08/06/2022 05:31
PFHxS	ND	1.7	0.49	0.49	1	355-46-4		08/06/2022 05:31
PFOA	ND	1.9	0.56	0.56	1	335-67-1		08/06/2022 05:31
6:2 FTS	ND	1.8	0.62	0.62	1	27619-97-2		08/06/2022 05:31
PFHpS	ND	1.8	0.39	0.39	1	375-92-8		08/06/2022 05:31
PFNA	ND	1.9	0.71	0.71	1	375-95-1		08/06/2022 05:31
PFOSAm	ND	1.9	0.78	0.78	1	754-91-6		08/06/2022 05:31
PFOS	ND	1.8	0.52	0.52	1	1763-23-1		08/06/2022 05:31
MeFOSA	ND	1.9	0.49	0.49	1	31506-32-8		08/06/2022 05:31
PFDA	ND	1.9	0.54	0.54	1	335-76-2		08/06/2022 05:31
EtFOSAm	ND	1.9	0.58	0.58	1	4151-50-2		08/06/2022 05:31
8:2 FTS	ND	1.8	0.63	0.63	1	39108-34-4		08/06/2022 05:31
9-CI-PF3ON	ND	1.8	0.29	0.29	1	756426-58-1		08/06/2022 05:31
PFNS	ND	1.8	0.43	0.43	1	68259-12-1		08/06/2022 05:31
PFUnDA	ND	1.9	0.52	0.52	1	2058-94-8		08/06/2022 05:31
NMeFOSAA	ND	1.9	0.42	0.42	1	2355-31-9		08/06/2022 05:31
NEtFOSAA	ND	1.9	0.53	0.53	1	2991-50-6		08/06/2022 05:31
PFDS	ND	1.8	0.43	0.43	1	335-77-3		08/06/2022 05:31
PFDOA	ND	1.9	0.46	0.46	1	307-55-1		08/06/2022 05:31
MeFOSE	ND	1.9	0.32	0.32	1	24448-09-7		08/06/2022 05:31
EtFOSE	ND	1.9	0.48	0.48	1	1691-99-2		08/06/2022 05:31
11-CI-PF3OUdS	ND	1.8	0.42	0.42	1	763051-92-9		08/06/2022 05:31
PFTTrDA	ND	1.9	0.60	0.60	1	72629-94-8		08/06/2022 05:31
PFDoS	ND	1.9	0.44	0.44	1	79780-39-5		08/06/2022 05:31
PFTDA	ND	1.9	0.46	0.46	1	376-06-7		08/06/2022 05:31

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKTH
 Lab Sample ID BLANK-100300
 Lab File ID B220806A_005
 Matrix Water
 Collected 07/27/2022 18:02
 Received 07/27/2022 18:02
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 261mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File

Injection Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	19	26	137	50-150		08/06/2022 05:31
13C4 PFOA	19	26	135	50-150		08/06/2022 05:31
13C2 PFDA	19	25	131	50-150		08/06/2022 05:31
13C4 PFOS	18	27	148	50-150		08/06/2022 05:31

Extracted Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	19	23	122	50-150		08/06/2022 05:31
13C5 PFPeA	19	24	127	50-150		08/06/2022 05:31
13C3 PFBS	18	21	118	50-150		08/06/2022 05:31
13C2 4:2FTS	18	22	124	50-150		08/06/2022 05:31
13C5 PFHxA	19	23	119	50-150		08/06/2022 05:31
13C4 PFHpA	19	24	124	50-150		08/06/2022 05:31
13C3 PFHxS	18	22	123	50-150		08/06/2022 05:31
13C2 6:2FTS	18	23	125	50-150		08/06/2022 05:31
13C8 PFOA	19	24	127	50-150		08/06/2022 05:31
13C9 PFNA	19	23	118	50-150		08/06/2022 05:31
13C8 PFOS	18	22	119	50-150		08/06/2022 05:31
13C2 8:2FTS	18	22	119	50-150		08/06/2022 05:31
13C6 PFDA	19	28	144	50-150		08/06/2022 05:31
d3-MeFOSAA	19	20	104	50-150		08/06/2022 05:31
13C8 PFOSA	19	21	109	50-150		08/06/2022 05:31
d5-EtFOSAA	19	21	109	50-150		08/06/2022 05:31
13C7 PFUdA	19	23	120	50-150		08/06/2022 05:31
13C2 PFDaA	19	21	111	50-150		08/06/2022 05:31
13C2 PFTeDA	19	19	97	50-150		08/06/2022 05:31
13C3 HFPO-DA	19	26	133	50-150		08/06/2022 05:31
d7-N-MeFOSE	19	19	98	20-150		08/06/2022 05:31
d9-N-EtFOSE	19	20	107	20-150		08/06/2022 05:31
d3-N-MeFOSA	19	16	83	20-150		08/06/2022 05:31
d5-N-EtFOSA	19	12	60	20-150		08/06/2022 05:31

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKTH
 Lab Sample ID BLANK-100300
 Lab File ID B220806A_005
 Matrix Water
 Collected 07/27/2022 18:02
 Received 07/27/2022 18:02
 Extraction Date 07/28/2022 08:56

Total Amount Extracted 261mL
 Ical ID 220803A02
 CCal File B220806A_003
 Ending CCal File B220806A_015
 Blank File

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.80	20		08/06/2022 05:31
13C4 PFOA	N/A	N/A	7.07	7.07	23		08/06/2022 05:31
13C2 PFDA	N/A	N/A	8.40	8.39	20		08/06/2022 05:31
13C4 PFOS	N/A	N/A	8.89	8.88	18		08/06/2022 05:31

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.29	4.30	25		08/06/2022 05:31
13C5 PFPeA	N/A	N/A	5.14	5.15	33		08/06/2022 05:31
13C3 PFBS	N/A	N/A	6.04	6.05	23		08/06/2022 05:31
13C2 4:2FTS	N/A	N/A	5.53	5.54	79		08/06/2022 05:31
13C5 PFHxA	N/A	N/A	5.79	5.80	19		08/06/2022 05:31
13C4 PFHpA	N/A	N/A	6.43	6.43	18		08/06/2022 05:31
13C3 PFHxS	N/A	N/A	7.48	7.49	23		08/06/2022 05:31
13C2 6:2FTS	N/A	N/A	6.73	6.74	12		08/06/2022 05:31
13C8 PFOA	N/A	N/A	7.07	7.07	22		08/06/2022 05:31
13C9 PFNA	N/A	N/A	7.72	7.72	19		08/06/2022 05:31
13C8 PFOS	N/A	N/A	8.90	8.88	23		08/06/2022 05:31
13C2 8:2FTS	N/A	N/A	8.01	8.01	45		08/06/2022 05:31
13C6 PFDA	N/A	N/A	8.40	8.39	18		08/06/2022 05:31
d3-MeFOSAA	N/A	N/A	8.26	8.25	23		08/06/2022 05:31
13C8 PFOSA	N/A	N/A	10.65	10.61	14		08/06/2022 05:31
d5-EtFOSAA	N/A	N/A	8.55	8.54	12		08/06/2022 05:31
13C7 PFUdA	N/A	N/A	9.09	9.07	23		08/06/2022 05:31
13C2 PFDoA	N/A	N/A	9.77	9.74	12		08/06/2022 05:31
13C2 PFTeDA	N/A	N/A	11.07	11.07	13		08/06/2022 05:31
13C3 HFPO-DA	N/A	N/A	6.05	6.06	17		08/06/2022 05:31
d7-N-MeFOSE	N/A	N/A	12.46	12.45	46		08/06/2022 05:31
d9-N-EtFOSE	N/A	N/A	12.93	12.92	57		08/06/2022 05:31
d3-N-MeFOSA	N/A	N/A	12.67	12.66	12		08/06/2022 05:31
d5-N-EtFOSA	N/A	N/A	13.09	13.08	69		08/06/2022 05:31

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	BLKTH	Total Amount Extracted	261mL
Lab Sample ID	BLANK-100300	Ical ID	220803A02
Lab File ID	B220806A_005	CCal File	B220806A_003
Matrix	Water	Ending CCal File	B220806A_015
Collected	07/27/2022 18:02	Blank File	
Received	07/27/2022 18:02		
Extraction Date	07/28/2022 08:56		

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.29	4.31	ND		08/06/2022 05:31
PFPeA	N/A	N/A	5.15	5.15	ND		08/06/2022 05:31
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/06/2022 05:31
PFBS	0.47	0.45	6.04	6.06	ND		08/06/2022 05:31
PFHxA	0.08	0.08	5.80	5.81	ND		08/06/2022 05:31
4:2 FTS	0.00	0.90	0.00	5.54	ND		08/06/2022 05:31
PFPeS	0.00	0.44	0.00	6.79	ND		08/06/2022 05:31
PFHpA	0.00	0.35	0.00	6.44	ND		08/06/2022 05:31
DONA	0.00	0.52	0.00	6.67	ND		08/06/2022 05:31
PFHxS	0.38	0.37	7.49	7.49	ND		08/06/2022 05:31
PFOA	0.33	0.41	7.08	7.08	ND		08/06/2022 05:31
6:2 FTS	0.95	0.83	6.74	6.74	ND		08/06/2022 05:31
PFHpS	0.00	0.36	0.00	8.20	ND		08/06/2022 05:31
PFNA	0.00	0.14	0.00	7.73	ND		08/06/2022 05:31
PFOSAm	N/A	N/A	10.66	10.61	ND		08/06/2022 05:31
PFOS	0.44	0.38	8.91	8.90	ND		08/06/2022 05:31
MeFOSA	0.00	0.55	12.70	12.69	ND		08/06/2022 05:31
PFDA	0.00	0.18	0.00	8.40	ND		08/06/2022 05:31
EtFOSAm	0.00	0.58	0.00	13.10	ND		08/06/2022 05:31
8:2 FTS	0.00	0.99	0.00	8.02	ND		08/06/2022 05:31
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/06/2022 05:31
PFNS	0.00	0.51	0.00	9.58	ND		08/06/2022 05:31
PFUnDA	0.00	0.17	0.00	9.08	ND		08/06/2022 05:31
NMeFOSAA	0.00	0.86	0.00	8.26	ND		08/06/2022 05:31
NEtFOSAA	0.00	0.66	0.00	8.55	ND		08/06/2022 05:31
PFDS	0.00	0.38	0.00	10.24	ND		08/06/2022 05:31
PFDOA	0.00	0.18	0.00	9.75	ND		08/06/2022 05:31
MeFOSE	N/A	N/A	0.00	12.49	ND		08/06/2022 05:31
EtFOSE	0.00	0.00	0.00	12.96	ND		08/06/2022 05:31
11-CI-PF3OUdS	0.00	0.02	0.00	10.72	ND		08/06/2022 05:31
PFTTrDA	0.00	0.14	0.00	10.42	ND		08/06/2022 05:31
PFDoS	0.00	0.48	0.00	11.48	ND		08/06/2022 05:31
PFTDA	0.00	0.32	0.00	11.07	ND		08/06/2022 05:31

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKSS
 Lab Sample ID BLANK-100249
 Lab File ID B220811C_044
 Matrix Soil
 Collected 07/26/2022 09:48
 Received 07/26/2022 09:48
 Extraction Date 08/01/2022 12:25

Total Amount Extracted 5.12g
 Ical ID 220810B02
 CCal File B220811C_035
 Ending CCal File B220811C_045
 Blank File

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.098	0.028	0.028	1	375-22-4		08/12/2022 12:30
PFPeA	ND	0.098	0.028	0.028	1	2706-90-3		08/12/2022 12:30
HFPO-DA	ND	0.098	0.027	0.027	1	13252-13-6		08/12/2022 12:30
PFBS	ND	0.087	0.026	0.026	1	375-73-5		08/12/2022 12:30
PFHxA	ND	0.098	0.027	0.027	1	307-24-4		08/12/2022 12:30
4:2 FTS	ND	0.091	0.023	0.023	1	757124-72-4		08/12/2022 12:30
PFPeS	ND	0.092	0.023	0.023	1	2706-91-4		08/12/2022 12:30
PFHpA	ND	0.098	0.034	0.034	1	375-85-9		08/12/2022 12:30
DONA	ND	0.092	0.035	0.035	1	919005-14-4		08/12/2022 12:30
PFHxS	ND	0.089	0.021	0.021	1	355-46-4		08/12/2022 12:30
PFOA	ND	0.098	0.030	0.030	1	335-67-1		08/12/2022 12:30
6:2 FTS	ND	0.093	0.040	0.040	1	27619-97-2		08/12/2022 12:30
PFHpS	ND	0.093	0.027	0.027	1	375-92-8		08/12/2022 12:30
PFNA	ND	0.098	0.030	0.030	1	375-95-1		08/12/2022 12:30
PFOSAm	ND	0.098	0.029	0.029	1	754-91-6		08/12/2022 12:30
PFOS	ND	0.090	0.029	0.029	1	1763-23-1		08/12/2022 12:30
MeFOSA	ND	0.098	0.027	0.027	1	31506-32-8		08/12/2022 12:30
PFDA	ND	0.098	0.022	0.022	1	335-76-2		08/12/2022 12:30
EtFOSAm	ND	0.098	0.025	0.025	1	4151-50-2		08/12/2022 12:30
8:2 FTS	ND	0.094	0.043	0.043	1	39108-34-4		08/12/2022 12:30
9-CI-PF3ON	ND	0.091	0.025	0.025	1	756426-58-1		08/12/2022 12:30
PFNS	ND	0.094	0.034	0.034	1	68259-12-1		08/12/2022 12:30
PFUnDA	ND	0.098	0.030	0.030	1	2058-94-8		08/12/2022 12:30
NMeFOSAA	ND	0.098	0.027	0.027	1	2355-31-9		08/12/2022 12:30
NEtFOSAA	ND	0.098	0.039	0.039	1	2991-50-6		08/12/2022 12:30
PFDS	ND	0.094	0.028	0.028	1	335-77-3		08/12/2022 12:30
PFDOA	ND	0.098	0.032	0.032	1	307-55-1		08/12/2022 12:30
MeFOSE	ND	0.098	0.030	0.030	1	24448-09-7		08/12/2022 12:30
EtFOSE	ND	0.098	0.031	0.031	1	1691-99-2		08/12/2022 12:30
11-CI-PF3OUdS	ND	0.092	0.025	0.025	1	763051-92-9		08/12/2022 12:30
PFTTrDA	ND	0.098	0.031	0.031	1	72629-94-8		08/12/2022 12:30
PFDoS	ND	0.095	0.026	0.026	1	79780-39-5		08/12/2022 12:30
PFTDA	ND	0.098	0.034	0.034	1	376-06-7		08/12/2022 12:30

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKSS
 Lab Sample ID BLANK-100249
 Lab File ID B220811C_044
 Matrix Soil
 Collected 07/26/2022 09:48
 Received 07/26/2022 09:48
 Extraction Date 08/01/2022 12:25

Total Amount Extracted 5.12g
 Ical ID 220810B02
 CCal File B220811C_035
 Ending CCal File B220811C_045
 Blank File

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.98	1.2	126	50-150		08/12/2022 12:30
13C4 PFOA	0.98	1.2	126	50-150		08/12/2022 12:30
13C2 PFDA	0.98	1.2	124	50-150		08/12/2022 12:30
13C4 PFOS	0.94	1.2	125	50-150		08/12/2022 12:30

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.98	0.95	97	50-150		08/12/2022 12:30
13C5 PFPeA	0.98	0.93	96	50-150		08/12/2022 12:30
13C3 PFBS	0.91	0.92	101	50-150		08/12/2022 12:30
13C2 4:2FTS	0.91	0.91	99	50-150		08/12/2022 12:30
13C5 PFHxA	0.98	1.1	108	50-150		08/12/2022 12:30
13C4 PFHpA	0.98	0.98	101	50-150		08/12/2022 12:30
13C3 PFHxS	0.92	0.93	100	50-150		08/12/2022 12:30
13C2 6:2FTS	0.93	0.83	90	50-150		08/12/2022 12:30
13C8 PFOA	0.98	0.99	101	50-150		08/12/2022 12:30
13C9 PFNA	0.98	0.89	91	50-150		08/12/2022 12:30
13C8 PFOS	0.94	0.91	97	50-150		08/12/2022 12:30
13C2 8:2FTS	0.94	0.97	104	50-150		08/12/2022 12:30
13C6 PFDA	0.98	0.97	100	50-150		08/12/2022 12:30
d3-MeFOSAA	0.98	0.87	89	50-150		08/12/2022 12:30
13C8 PFOSA	0.98	0.96	98	50-150		08/12/2022 12:30
d5-EtFOSAA	0.98	0.97	99	50-150		08/12/2022 12:30
13C7 PFUdA	0.98	0.99	101	50-150		08/12/2022 12:30
13C2 PFDoA	0.98	0.91	93	50-150		08/12/2022 12:30
13C2 PFTeDA	0.98	1.1	109	50-150		08/12/2022 12:30
13C3 HFPO-DA	0.98	0.85	87	50-150		08/12/2022 12:30
d7-N-MeFOSE	0.98	0.95	98	10-150		08/12/2022 12:30
d9-N-EtFOSE	0.98	1.1	108	10-150		08/12/2022 12:30
d3-N-MeFOSA	0.98	0.91	93	10-150		08/12/2022 12:30
d5-N-EtFOSA	0.98	0.93	96	10-150		08/12/2022 12:30

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Total Amount Extracted 5.12g
 Ical ID 220810B02
 CCal File B220811C_035
 Ending CCal File B220811C_045
 Blank File

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.77	24		08/12/2022 12:30
13C4 PFOA	N/A	N/A	7.05	7.07	26		08/12/2022 12:30
13C2 PFDA	N/A	N/A	8.41	8.39	28		08/12/2022 12:30
13C4 PFOS	N/A	N/A	8.89	8.88	18		08/12/2022 12:30

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.21	4.23	19		08/12/2022 12:30
13C5 PFPeA	N/A	N/A	5.13	5.10	27		08/12/2022 12:30
13C3 PFBS	N/A	N/A	6.03	6.02	29		08/12/2022 12:30
13C2 4:2FTS	N/A	N/A	5.54	5.51	97		08/12/2022 12:30
13C5 PFHxA	N/A	N/A	5.80	5.78	19		08/12/2022 12:30
13C4 PFHpA	N/A	N/A	6.42	6.42	19		08/12/2022 12:30
13C3 PFHxS	N/A	N/A	7.46	7.47	24		08/12/2022 12:30
13C2 6:2FTS	N/A	N/A	6.73	6.73	21		08/12/2022 12:30
13C8 PFOA	N/A	N/A	7.05	7.06	25		08/12/2022 12:30
13C9 PFNA	N/A	N/A	7.72	7.71	28		08/12/2022 12:30
13C8 PFOS	N/A	N/A	8.89	8.86	22		08/12/2022 12:30
13C2 8:2FTS	N/A	N/A	8.02	8.00	22		08/12/2022 12:30
13C6 PFDA	N/A	N/A	8.41	8.38	19		08/12/2022 12:30
d3-MeFOSAA	N/A	N/A	8.27	8.25	11		08/12/2022 12:30
13C8 PFOSA	N/A	N/A	10.53	10.42	14		08/12/2022 12:30
d5-EtFOSAA	N/A	N/A	8.56	8.54	16		08/12/2022 12:30
13C7 PFUdA	N/A	N/A	9.08	9.07	26		08/12/2022 12:30
13C2 PFDoA	N/A	N/A	9.75	9.71	14		08/12/2022 12:30
13C2 PFTeDA	N/A	N/A	11.05	11.02	21		08/12/2022 12:30
13C3 HFPO-DA	N/A	N/A	6.06	6.04	17		08/12/2022 12:30
d7-N-MeFOSE	N/A	N/A	12.43	12.44	41		08/12/2022 12:30
d9-N-EtFOSE	N/A	N/A	12.91	12.88	40		08/12/2022 12:30
d3-N-MeFOSA	N/A	N/A	12.64	12.65	11		08/12/2022 12:30
d5-N-EtFOSA	N/A	N/A	13.06	13.07	77		08/12/2022 12:30

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

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 Lab Sample ID BLANK-100249
 Lab File ID B220811C_044
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 Received 07/26/2022 09:48
 Extraction Date 08/01/2022 12:25

Total Amount Extracted 5.12g
 Ical ID 220810B02
 CCal File B220811C_035
 Ending CCal File B220811C_045
 Blank File

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.39	4.23	ND		08/12/2022 12:30
PFPeA	N/A	N/A	5.14	5.15	ND		08/12/2022 12:30
HFPO-DA	0.00	0.28	0.00	6.07	ND		08/12/2022 12:30
PFBS	0.65	0.45	6.04	6.02	ND		08/12/2022 12:30
PFHxA	0.21	0.08	5.81	5.81	ND		08/12/2022 12:30
4:2 FTS	0.00	0.81	0.00	5.54	ND		08/12/2022 12:30
PFPeS	0.00	0.45	0.00	6.79	ND		08/12/2022 12:30
PFHpA	0.00	0.31	0.00	6.44	ND		08/12/2022 12:30
DONA	0.00	0.55	0.00	6.67	ND		08/12/2022 12:30
PFHxS	1.70	0.36	7.47	7.49	ND		08/12/2022 12:30
PFOA	0.80	0.32	7.06	7.08	ND		08/12/2022 12:30
6:2 FTS	1.00	0.81	6.73	6.74	ND		08/12/2022 12:30
PFHpS	0.00	0.41	0.00	8.20	ND		08/12/2022 12:30
PFNA	0.00	0.13	0.00	7.73	ND		08/12/2022 12:30
PFOSAm	N/A	N/A	0.00	10.44	ND		08/12/2022 12:30
PFOS	0.00	0.40	0.00	8.90	ND		08/12/2022 12:30
MeFOSA	0.00	0.56	0.00	12.69	ND		08/12/2022 12:30
PFDA	0.00	0.19	0.00	8.40	ND		08/12/2022 12:30
EtFOSAm	0.00	0.52	0.00	13.10	ND		08/12/2022 12:30
8:2 FTS	0.00	0.85	0.00	8.02	ND		08/12/2022 12:30
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/12/2022 12:30
PFNS	0.00	0.44	0.00	9.58	ND		08/12/2022 12:30
PFUnDA	0.00	0.15	0.00	9.05	ND		08/12/2022 12:30
NMeFOSAA	0.57	0.81	8.52	8.26	ND		08/12/2022 12:30
NEtFOSAA	0.00	0.62	0.00	8.55	ND		08/12/2022 12:30
PFDS	0.00	0.37	0.00	10.19	ND		08/12/2022 12:30
PFDOA	0.00	0.17	0.00	9.72	ND		08/12/2022 12:30
MeFOSE	N/A	N/A	0.00	12.45	ND		08/12/2022 12:30
EtFOSE	0.00	0.00	0.00	12.92	ND		08/12/2022 12:30
11-CI-PF3OUdS	0.00	0.03	0.00	10.66	ND		08/12/2022 12:30
PFTTrDA	0.00	0.15	0.00	10.37	ND		08/12/2022 12:30
PFDoS	0.00	0.48	0.00	11.43	ND		08/12/2022 12:30
PFTDA	0.00	0.25	0.00	11.02	ND		08/12/2022 12:30

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID	LCS-100049	Instrument ID	10LCMS02
Run File Name	B220804B_006	Column ID	118AB10133
Analyzed	08/05/2022 02:31	Ical ID	220803A02
Injected By	NH	Level	L

Injection Internal Standards

Compound	Known Conc. ug/Kg	Conc. Found ug/Kg	%Recovery	Recovery Limits	Qualifiers
13C2 PFHxA	1.0	1.2	120	50-150	
13C4 PFOA	1.0	1.4	144	50-150	
13C2 PFDA	1.0	1.3	132	50-150	
13C4 PFOS	0.96	1.2	125	50-150	

Extracted Internal Standards

Compound	Known Conc. ug/Kg	Conc. Found ug/Kg	%Recovery	Recovery Limits	Qualifiers
13C4 PFBA	1.0	1.0	103	50-150	
13C5 PFPeA	1.0	1.1	110	50-150	
13C3 PFBS	0.93	1.0	108	50-150	
13C2 4:2FTS	0.94	0.91	98	50-150	
13C5 PFHxA	1.0	1.00	100	50-150	
13C4 PFHpA	1.0	1.0	102	50-150	
13C3 PFHxS	0.95	0.99	105	50-150	
13C2 6:2FTS	0.95	1.0	108	50-150	
13C8 PFOA	1.0	1.1	108	50-150	
13C9 PFNA	1.0	1.2	123	50-150	
13C8 PFOS	0.96	0.97	102	50-150	
13C2 8:2FTS	0.96	1.1	113	50-150	
13C6 PFDA	1.0	0.97	97	50-150	
d3-MeFOSAA	1.0	1.1	107	50-150	
13C8 PFOSA	1.0	1.0	102	50-150	
d5-EtFOSAA	1.0	1.1	107	50-150	
13C7 PFUdA	1.0	1.1	107	50-150	
13C2 PFDoA	1.0	1.0	102	50-150	
13C2 PFTeDA	1.0	1.2	124	50-150	
13C3 HFPO-DA	1.0	1.0	101	50-150	
d7-N-MeFOSE	1.0	1.2	121	20-150	
d9-N-EtFOSE	1.0	0.94	94	20-150	
d3-N-MeFOSA	1.0	1.1	105	20-150	
d5-N-EtFOSA	1.0	1.0	102	20-150	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100049
 Run File Name B220804B_006
 Analyzed 08/05/2022 02:31
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Native Analytes

Compound	Known Conc. ug/Kg	Conc. Found ug/Kg	%Recovery	Recovery Limits	Qualifiers	CAS No.
PFBA	0.20	0.22	112	50-150		375-22-4
PFPeA	0.20	0.23	114	50-150		2706-90-3
HFPO-DA	0.20	0.22	108	50-150		13252-13-6
PFBS	0.18	0.19	106	50-150		375-73-5
PFHxA	0.20	0.22	111	50-150		307-24-4
4:2 FTS	0.19	0.21	110	50-150		757124-72-4
PFPeS	0.19	0.19	103	50-150		2706-91-4
PFHpA	0.20	0.21	106	50-150		375-85-9
DONA	0.19	0.20	103	50-150		919005-14-4
PFHxS	0.18	0.18	100	50-150		355-46-4
PFOA	0.20	0.22	109	50-150		335-67-1
6:2 FTS	0.19	0.19	101	50-150		27619-97-2
PFHpS	0.19	0.20	106	50-150		375-92-8
PFNA	0.20	0.20	102	50-150		375-95-1
PFOSAm	0.20	0.21	107	50-150		754-91-6
PFOS	0.18	0.20	106	50-150		1763-23-1
MeFOSA	0.20	0.20	100	50-150		31506-32-8
PFDA	0.20	0.23	113	50-150		335-76-2
EtFOSAm	0.20	0.20	102	50-150		4151-50-2
8:2 FTS	0.19	0.20	102	50-150		39108-34-4
9-CI-PF3ON	0.19	0.21	115	50-150		756426-58-1
PFNS	0.19	0.22	113	50-150		68259-12-1
PFUnDA	0.20	0.20	102	50-150		2058-94-8
NMeFOSAA	0.20	0.22	112	50-150		2355-31-9
NEtFOSAA	0.20	0.22	110	50-150		2991-50-6
PFDS	0.19	0.22	116	50-150		335-77-3
PFDOA	0.20	0.22	112	50-150		307-55-1
MeFOSE	0.20	0.19	94	50-150		24448-09-7
EtFOSE	0.20	0.23	114	50-150		1691-99-2
11-CI-PF3OUdS	0.19	0.22	115	50-150		763051-92-9
PFTrDA	0.20	0.17	87	50-150		72629-94-8
PFDoS	0.19	0.21	106	50-150		79780-39-5
PFTDA	0.20	0.21	104	50-150		376-06-7

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100049
 Run File Name B220804B_006
 Analyzed 08/05/2022 02:31
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.78	5.80	1804	
13C4 PFOA	N/A	N/A	7.04	7.07	1827	
13C2 PFDA	N/A	N/A	8.38	8.39	1476	
13C4 PFOS	N/A	N/A	8.87	8.88	1286	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.30	4.30	2488	
13C5 PFPeA	N/A	N/A	5.14	5.15	2510	
13C3 PFBS	N/A	N/A	6.03	6.05	2709	
13C2 4:2FTS	N/A	N/A	5.52	5.54	993	
13C5 PFHxA	N/A	N/A	5.79	5.80	2559	
13C4 PFHpA	N/A	N/A	6.41	6.43	2084	
13C3 PFHxS	N/A	N/A	7.47	7.49	2150	
13C2 6:2FTS	N/A	N/A	6.71	6.74	17284	
13C8 PFOA	N/A	N/A	7.04	7.07	2540	
13C9 PFNA	N/A	N/A	7.70	7.72	2291	
13C8 PFOS	N/A	N/A	8.87	8.88	2586	
13C2 8:2FTS	N/A	N/A	7.99	8.01	37901	
13C6 PFDA	N/A	N/A	8.38	8.39	1323	
d3-MeFOSAA	N/A	N/A	8.23	8.25	1364	
13C8 PFOSA	N/A	N/A	10.61	10.61	1270	
d5-EtFOSAA	N/A	N/A	8.53	8.54	1058	
13C7 PFUdA	N/A	N/A	9.05	9.07	2243	
13C2 PFDoA	N/A	N/A	9.73	9.74	1462	
13C2 PFTeDA	N/A	N/A	11.05	11.07	1502	
13C3 HFPO-DA	N/A	N/A	6.04	6.06	1599	
d7-N-MeFOSE	N/A	N/A	12.45	12.45	39	
d9-N-EtFOSE	N/A	N/A	12.92	12.92	453	
d3-N-MeFOSA	N/A	N/A	12.66	12.66	1240	
d5-N-EtFOSA	N/A	N/A	13.08	13.08	594	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100049
 Run File Name B220804B_006
 Analyzed 08/05/2022 02:31
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.30	4.31	128	
PFPeA	N/A	N/A	5.14	5.15	363	
HFPO-DA	0.28	0.27	6.05	6.07	1097	
PFBS	0.46	0.43	6.04	6.06	1083	
PFHxA	0.08	0.07	5.79	5.81	340	
4:2 FTS	0.88	0.85	5.53	5.54	56311	
PFPeS	0.43	0.46	6.77	6.79	1666	
PFHpA	0.32	0.29	6.42	6.44	18	
DONA	0.56	0.57	6.65	6.67	1563	
PFHxS	0.39	0.40	7.48	7.49	1725	
PFOA	0.40	0.40	7.05	7.08	200	
6:2 FTS	0.92	0.97	6.72	6.74	649	
PFHpS	0.43	0.36	8.19	8.20	6075	
PFNA	0.13	0.12	7.71	7.73	634	
PFOSAm	N/A	N/A	10.62	10.61	1365	
PFOS	0.40	0.44	8.89	8.90	399	
MeFOSA	0.58	0.51	12.69	12.69	1300	
PFDA	0.15	0.19	8.39	8.40	380	
EtFOSAm	0.60	0.59	13.10	13.10	796	
8:2 FTS	0.78	0.88	8.00	8.02	349776	
9-Cl-PF3ON	0.06	0.06	9.38	9.39	1233	
PFNS	0.50	0.47	9.57	9.58	1379	
PFUnDA	0.12	0.15	9.06	9.08	476	
NMeFOSAA	0.76	0.90	8.24	8.26	1238	
NEtFOSAA	0.55	0.71	8.54	8.55	428	
PFDS	0.34	0.32	10.23	10.24	3778	
PFDOA	0.18	0.20	9.74	9.75	328	
MeFOSE	N/A	N/A	12.49	12.49	500	
EtFOSE	0.00	0.00	12.95	12.96	521	
11-Cl-PF3OUdS	0.02	0.02	10.71	10.72	615	
PFTrDA	0.19	0.16	10.41	10.42	323	
PFDoS	0.50	0.48	11.47	11.48	2300	
PFTDA	0.25	0.30	11.06	11.07	266	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID	LCS-100301	Instrument ID	10LCMS02
Run File Name	B220806A_006	Column ID	118AB10133
Analyzed	08/06/2022 05:51	Ical ID	220803A02
Injected By	NH	Level	L

Injection Internal Standards

Compound	Known Conc. ng/L	Conc. Found ng/L	%Recovery	Recovery Limits	Qualifiers
13C2_PFHxA	20	28	141	50-150	
13C4_PFOA	20	25	126	50-150	
13C2_PFDA	20	23	115	50-150	
13C4_PFOS	19	25	130	50-150	

Extracted Internal Standards

Compound	Known Conc. ng/L	Conc. Found ng/L	%Recovery	Recovery Limits	Qualifiers
13C4_PFBFA	20	21	107	50-150	
13C5_PFPeA	20	21	107	50-150	
13C3_PFBFS	18	19	105	50-150	
13C2_4:2FTS	19	20	109	50-150	
13C5_PFHxA	20	20	103	50-150	
13C4_PFHpA	20	23	115	50-150	
13C3_PFHxS	19	19	102	50-150	
13C2_6:2FTS	19	21	110	50-150	
13C8_PFOA	20	21	107	50-150	
13C9_PFNA	20	21	108	50-150	
13C8_PFOS	19	19	103	50-150	
13C2_8:2FTS	19	21	109	50-150	
13C6_PFDA	20	22	109	50-150	
d3-MeFOSAA	20	19	96	50-150	
13C8_PFOSA	20	21	104	50-150	
d5-EtFOSAA	20	25	125	50-150	
13C7_PFUdA	20	25	127	50-150	
13C2_PFDaA	20	18	91	50-150	
13C2_PFTeDA	20	15	78	50-150	
13C3_HFPO-DA	20	23	116	50-150	
d7-N-MeFOSE	20	22	109	20-150	
d9-N-EtFOSE	20	21	107	20-150	
d3-N-MeFOSA	20	22	113	20-150	
d5-N-EtFOSA	20	19	98	20-150	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100301
 Run File Name B220806A_006
 Analyzed 08/06/2022 05:51
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Native Analytes

Compound	Known Conc. ng/L	Conc. Found ng/L	%Recovery	Recovery Limits	Qualifiers	CAS No.
PFBA	4.0	4.3	108	50-150		375-22-4
PFPeA	4.0	4.5	115	50-150		2706-90-3
HFPO-DA	4.0	4.0	101	50-150		13252-13-6
PFBS	3.5	3.8	107	50-150		375-73-5
PFHxA	4.0	4.4	112	50-150		307-24-4
4:2 FTS	3.7	3.9	107	50-150		757124-72-4
PFPeS	3.7	4.0	107	50-150		2706-91-4
PFHpA	4.0	4.2	107	50-150		375-85-9
DONA	3.7	4.2	112	50-150		919005-14-4
PFHxS	3.6	3.7	103	50-150		355-46-4
PFOA	4.0	4.6	117	50-150		335-67-1
6:2 FTS	3.8	3.7	98	50-150		27619-97-2
PFHpS	3.8	3.9	104	50-150		375-92-8
PFNA	4.0	4.2	107	50-150		375-95-1
PFOSAm	4.0	3.9	99	50-150		754-91-6
PFOS	3.7	3.8	105	50-150		1763-23-1
MeFOSA	4.0	3.6	90	50-150		31506-32-8
PFDA	4.0	4.3	108	50-150		335-76-2
EtFOSAm	4.0	4.0	102	50-150		4151-50-2
8:2 FTS	3.8	3.9	101	50-150		39108-34-4
9-CI-PF3ON	3.7	4.0	109	50-150		756426-58-1
PFNS	3.8	3.8	101	50-150		68259-12-1
PFUnDA	4.0	3.6	91	50-150		2058-94-8
NMeFOSAA	4.0	4.3	110	50-150		2355-31-9
NEtFOSAA	4.0	3.9	99	50-150		2991-50-6
PFDS	3.8	3.5	93	50-150		335-77-3
PFDOA	4.0	4.9	123	50-150		307-55-1
MeFOSE	4.0	3.3	84	50-150		24448-09-7
EtFOSE	4.0	4.0	102	50-150		1691-99-2
11-CI-PF3OUdS	3.7	3.6	98	50-150		763051-92-9
PFTrDA	4.0	4.3	108	50-150		72629-94-8
PFDoS	3.8	3.5	92	50-150		79780-39-5
PFTDA	4.0	4.9	124	50-150		376-06-7

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100301
 Run File Name B220806A_006
 Analyzed 08/06/2022 05:51
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.80	5.80	2135	
13C4 PFOA	N/A	N/A	7.07	7.07	2408	
13C2 PFDA	N/A	N/A	8.40	8.39	2064	
13C4 PFOS	N/A	N/A	8.89	8.88	2032	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.30	4.30	2370	
13C5 PFPeA	N/A	N/A	5.15	5.15	2742	
13C3 PFBS	N/A	N/A	6.05	6.05	3083	
13C2 4:2FTS	N/A	N/A	5.54	5.54	1015	
13C5 PFHxA	N/A	N/A	5.80	5.80	1664	
13C4 PFHpA	N/A	N/A	6.43	6.43	2284	
13C3 PFHxS	N/A	N/A	7.49	7.49	2095	
13C2 6:2FTS	N/A	N/A	6.74	6.74	13355	
13C8 PFOA	N/A	N/A	7.07	7.07	2136	
13C9 PFNA	N/A	N/A	7.73	7.72	1929	
13C8 PFOS	N/A	N/A	8.90	8.88	3620	
13C2 8:2FTS	N/A	N/A	8.01	8.01	59022	
13C6 PFDA	N/A	N/A	8.40	8.39	1469	
d3-MeFOSAA	N/A	N/A	8.26	8.25	1726	
13C8 PFOSA	N/A	N/A	10.66	10.61	1586	
d5-EtFOSAA	N/A	N/A	8.55	8.54	1744	
13C7 PFUdA	N/A	N/A	9.09	9.07	3551	
13C2 PFDoA	N/A	N/A	9.77	9.74	1224	
13C2 PFTeDA	N/A	N/A	11.09	11.07	1076	
13C3 HFPO-DA	N/A	N/A	6.06	6.06	1566	
d7-N-MeFOSE	N/A	N/A	12.47	12.45	52	
d9-N-EtFOSE	N/A	N/A	12.94	12.92	623	
d3-N-MeFOSA	N/A	N/A	12.69	12.66	2227	
d5-N-EtFOSA	N/A	N/A	13.10	13.08	689	

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100301
 Run File Name B220806A_006
 Analyzed 08/06/2022 05:51
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.30	4.31	143	
PFPeA	N/A	N/A	5.16	5.15	356	
HFPO-DA	0.28	0.27	6.07	6.07	1057	
PFBS	0.43	0.45	6.05	6.06	1038	
PFHxA	0.08	0.08	5.81	5.81	398	
4:2 FTS	0.86	0.90	5.55	5.54	2742	
PFPeS	0.43	0.44	6.79	6.79	1317	
PFHpA	0.33	0.35	6.44	6.44	20	
DONA	0.55	0.52	6.67	6.67	1404	
PFHxS	0.43	0.37	7.50	7.49	1139	
PFOA	0.38	0.41	7.08	7.08	253	
6:2 FTS	0.85	0.83	6.74	6.74	713	
PFHpS	0.40	0.36	8.21	8.20	2590	
PFNA	0.13	0.14	7.74	7.73	704	
PFOSAm	N/A	N/A	10.67	10.61	1102	
PFOS	0.34	0.38	8.91	8.90	599	
MeFOSA	0.57	0.55	12.71	12.69	1636	
PFDA	0.20	0.18	8.41	8.40	399	
EtFOSAm	0.57	0.58	13.12	13.10	821	
8:2 FTS	0.89	0.99	8.02	8.02	2864727	
9-Cl-PF3ON	0.05	0.06	9.41	9.39	1165	
PFNS	0.54	0.51	9.60	9.58	1772	
PFUnDA	0.14	0.17	9.09	9.08	419	
NMeFOSAA	0.80	0.86	8.27	8.26	181487	
NEtFOSAA	0.57	0.66	8.56	8.55	322	
PFDS	0.36	0.38	10.27	10.24	1693	
PFDOA	0.18	0.18	9.78	9.75	346	
MeFOSE	N/A	N/A	12.52	12.49	348	
EtFOSE	0.00	0.00	12.97	12.96	402	
11-Cl-PF3OUdS	0.02	0.02	10.74	10.72	666	
PFTrDA	0.16	0.14	10.45	10.42	302	
PFDoS	0.51	0.48	11.50	11.48	2440	
PFTDA	0.23	0.32	11.10	11.07	187	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID	LCS-100250	Instrument ID	10LCMS02
Run File Name	B220808A_034	Column ID	118AB10133
Analyzed	08/08/2022 18:44	Ical ID	220803A02
Injected By	NH	Level	L

Injection Internal Standards

Compound	Known Conc. ug/Kg	Conc. Found ug/Kg	%Recovery	Recovery Limits	Qualifiers
13C2_PFHxA	0.99	1.1	115	50-150	
13C4_PFOA	0.99	1.1	111	50-150	
13C2_PFDA	0.99	1.1	110	50-150	
13C4_PFOS	0.95	1.1	111	50-150	

Extracted Internal Standards

Compound	Known Conc. ug/Kg	Conc. Found ug/Kg	%Recovery	Recovery Limits	Qualifiers
13C4_PFBFA	0.99	0.98	98	50-150	
13C5_PFPeA	0.99	0.96	96	50-150	
13C3_PFBFS	0.92	0.97	106	50-150	
13C2_4:2FTS	0.93	0.90	97	50-150	
13C5_PFHxA	0.99	0.98	99	50-150	
13C4_PFHpA	0.99	0.91	92	50-150	
13C3_PFHxS	0.94	0.92	98	50-150	
13C2_6:2FTS	0.94	0.95	101	50-150	
13C8_PFOA	0.99	0.97	97	50-150	
13C9_PFNA	0.99	0.96	97	50-150	
13C8_PFOS	0.95	0.99	104	50-150	
13C2_8:2FTS	0.95	1.1	118	50-150	
13C6_PFDA	0.99	1.2	117	50-150	
d3-MeFOSAA	0.99	1.0	102	50-150	
13C8_PFOA	0.99	0.90	91	50-150	
d5-EtFOSAA	0.99	1.0	104	50-150	
13C7_PFUdA	0.99	1.0	105	50-150	
13C2_PFDaA	0.99	0.93	94	50-150	
13C2_PFTeDA	0.99	0.93	94	50-150	
13C3_HFPO-DA	0.99	0.86	87	50-150	
d7-N-MeFOSE	0.99	0.98	99	10-150	
d9-N-EtFOSE	0.99	0.82	82	10-150	
d3-N-MeFOSA	0.99	0.86	87	10-150	
d5-N-EtFOSA	0.99	0.80	81	10-150	

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100250
 Run File Name B220808A_034
 Analyzed 08/08/2022 18:44
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Native Analytes

Compound	Known Conc. ug/Kg	Conc. Found ug/Kg	%Recovery	Recovery Limits	Qualifiers	CAS No.
PFBA	0.20	0.22	109	73-129		375-22-4
PFPeA	0.20	0.23	115	72-129		2706-90-3
HFPO-DA	0.20	0.22	113	70-140		13252-13-6
PFBS	0.18	0.18	104	72-130		375-73-5
PFHxA	0.20	0.21	107	72-129		307-24-4
4:2 FTS	0.19	0.23	122	63-143		757124-72-4
PFPeS	0.19	0.20	108	71-127		2706-91-4
PFHpA	0.20	0.23	114	72-130		375-85-9
DONA	0.19	0.18	96	70-140		919005-14-4
PFHxS	0.18	0.18	102	68-131		355-46-4
PFOA	0.20	0.20	102	71-133		335-67-1
6:2 FTS	0.19	0.19	101	64-140		27619-97-2
PFHpS	0.19	0.22	116	69-134		375-92-8
PFNA	0.20	0.20	102	69-130		375-95-1
PFOSAm	0.20	0.21	105	67-137		754-91-6
PFOS	0.18	0.19	101	65-140		1763-23-1
MeFOSA	0.20	0.21	106	68-141		31506-32-8
PFDA	0.20	0.19	97	71-129		335-76-2
EtFOSAm	0.20	0.21	105	70-140		4151-50-2
8:2 FTS	0.19	0.22	114	67-138		39108-34-4
9-CI-PF3ON	0.18	0.20	111	70-130		756426-58-1
PFNS	0.19	0.22	116	69-127		68259-12-1
PFUnDA	0.20	0.20	101	69-133		2058-94-8
NMeFOSAA	0.20	0.20	103	65-136		2355-31-9
NEtFOSAA	0.20	0.20	99	61-135		2991-50-6
PFDS	0.19	0.21	111	53-142		335-77-3
PFDOA	0.20	0.21	107	72-134		307-55-1
MeFOSE	0.20	0.19	96	70-140		24448-09-7
EtFOSE	0.20	0.26	134	70-140		1691-99-2
11-CI-PF3OUdS	0.19	0.21	110	70-140		763051-92-9
PFTrDA	0.20	0.19	96	65-144		72629-94-8
PFDoS	0.19	0.20	102	70-140		79780-39-5
PFTDA	0.20	0.25	124	71-132		376-06-7

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100250
 Run File Name B220808A_034
 Analyzed 08/08/2022 18:44
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.75	5.80	1568	
13C4 PFOA	N/A	N/A	7.03	7.07	2205	
13C2 PFDA	N/A	N/A	8.34	8.39	2194	
13C4 PFOS	N/A	N/A	8.81	8.88	2033	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.34	4.30	2900	
13C5 PFPeA	N/A	N/A	5.12	5.15	2295	
13C3 PFBS	N/A	N/A	6.00	6.05	3073	
13C2 4:2FTS	N/A	N/A	5.49	5.54	1183	
13C5 PFHxA	N/A	N/A	5.75	5.80	1495	
13C4 PFHpA	N/A	N/A	6.39	6.43	1497	
13C3 PFHxS	N/A	N/A	7.44	7.49	2298	
13C2 6:2FTS	N/A	N/A	6.69	6.74	2165	
13C8 PFOA	N/A	N/A	7.03	7.07	1999	
13C9 PFNA	N/A	N/A	7.68	7.72	2146	
13C8 PFOS	N/A	N/A	8.81	8.88	3074	
13C2 8:2FTS	N/A	N/A	7.96	8.01	730129	
13C6 PFDA	N/A	N/A	8.34	8.39	1310	
d3-MeFOSAA	N/A	N/A	8.20	8.25	1495	
13C8 PFOSA	N/A	N/A	10.61	10.61	1442	
d5-EtFOSAA	N/A	N/A	8.50	8.54	1266	
13C7 PFUdA	N/A	N/A	9.00	9.07	2601	
13C2 PFDoA	N/A	N/A	9.67	9.74	1629	
13C2 PFTeDA	N/A	N/A	10.97	11.07	1342	
13C3 HFPO-DA	N/A	N/A	6.01	6.06	1532	
d7-N-MeFOSE	N/A	N/A	12.37	12.45	54	
d9-N-EtFOSE	N/A	N/A	12.85	12.92	491	
d3-N-MeFOSA	N/A	N/A	12.59	12.66	965	
d5-N-EtFOSA	N/A	N/A	13.02	13.08	711	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100250
 Run File Name B220808A_034
 Analyzed 08/08/2022 18:44
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.34	4.31	100	
PFPeA	N/A	N/A	5.13	5.15	301	
HFPO-DA	0.26	0.27	6.02	6.07	774	
PFBS	0.41	0.43	6.01	6.06	923	
PFHxA	0.08	0.07	5.76	5.81	425	
4:2 FTS	0.81	0.90	5.49	5.54	1036	
PFPeS	0.45	0.45	6.74	6.79	1381	
PFHpA	0.29	0.28	6.39	6.44	21	
DONA	0.52	0.50	6.63	6.67	1735	
PFHxS	0.40	0.38	7.45	7.49	1444	
PFOA	0.38	0.35	7.04	7.08	176	
6:2 FTS	0.85	0.83	6.69	6.74	571	
PFHpS	0.33	0.43	8.14	8.20	2989	
PFNA	0.14	0.16	7.69	7.73	786	
PFOSAm	N/A	N/A	10.62	10.61	1183	
PFOS	0.41	0.35	8.82	8.90	691	
MeFOSA	0.53	0.54	12.61	12.61	826	
PFDA	0.18	0.15	8.35	8.40	56	
EtFOSAm	0.59	0.62	13.04	13.10	724	
8:2 FTS	0.82	0.85	7.97	8.02	6864932	
9-Cl-PF3ON	0.05	0.06	9.31	9.39	1442	
PFNS	0.49	0.48	9.49	9.58	1781	
PFUnDA	0.13	0.14	9.01	9.08	504	
NMeFOSAA	0.89	0.86	8.21	8.26	3308075	
NEtFOSAA	0.71	0.69	8.51	8.55	351	
PFDS	0.35	0.36	10.15	10.24	2483	
PFDOA	0.18	0.18	9.68	9.75	378	
MeFOSE	N/A	N/A	12.41	12.49	325	
EtFOSE	0.00	0.00	12.89	12.96	450	
11-Cl-PF3OUdS	0.02	0.02	10.62	10.72	658	
PFTrDA	0.17	0.15	10.34	10.42	350	
PFDoS	0.49	0.45	11.38	11.48	1916	
PFTDA	0.22	0.21	10.98	11.07	282	

REPORT OF LABORATORY ANALYSIS

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LCSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCSD-100302
 Run File Name B220806A_007
 Analyzed 08/06/2022 06:11
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Injection Internal Standards

Compound	Known Conc. ng/L	LCS Conc. Found ng/L	LCS Rec. %	LCSD Conc. Found ng/L	LCSD Rec. %	RPD %	Recovery Limits	Qualifiers
13C2_PFHxA	20	28	141	26	132	7.3	50-150	
13C4_PFOA	20	25	126	24	122	3.1	50-150	
13C2_PFDA	20	23	115	25	125	7.9	50-150	
13C4_PFOS	19	25	130	23	122	6.7	50-150	

Extracted Internal Standards

Compound	Known Conc. ng/L	LCS Conc. Found ng/L	LCS Rec. %	LCSD Conc. Found ng/L	LCSD Rec. %	RPD %	Recovery Limits	Qualifiers
13C4_PFBA	20	21	107	21	104	2.8	50-150	
13C5_PFPeA	20	21	107	21	106	1.0	50-150	
13C3_PFBS	18	19	105	18	99	5.5	50-150	
13C2_4:2FTS	18	20	109	19	104	4.9	50-150	
13C5_PFHxA	20	20	103	20	102	0.8	50-150	
13C4_PFHpA	20	23	115	20	101	13.0	50-150	
13C3_PFHxS	19	19	102	19	101	1.2	50-150	
13C2_6:2FTS	19	21	110	19	102	7.6	50-150	
13C8_PFOA	20	21	107	21	107	0.0	50-150	
13C9_PFNA	20	21	108	20	103	4.5	50-150	
13C8_PFOS	19	19	103	18	95	7.7	50-150	
13C2_8:2FTS	19	21	109	19	103	5.7	50-150	
13C6_PFDA	20	22	109	23	117	7.3	50-150	
d3-MeFOSAA	20	19	96	19	96	0.1	50-150	
13C8_PFOA	20	21	104	17	86	19.7	50-150	
d5-EtFOSAA	20	25	125	22	111	11.6	50-150	
13C7_PFUdA	20	25	127	21	106	17.6	50-150	
13C2_PFDoA	20	18	91	19	95	4.5	50-150	
13C2_PFTeDA	20	15	78	16	82	6.0	50-150	
13C3_HFPO-DA	20	23	116	23	114	1.6	50-150	
d7-N-MeFOSE	20	22	109	16	82	27.8	20-150	
d9-N-EtFOSE	20	21	107	17	84	23.8	20-150	
d3-N-MeFOSA	20	22	113	16	80	34.1	20-150	
d5-N-EtFOSA	20	19	98	16	79	21.7	20-150	

REPORT OF LABORATORY ANALYSIS

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LCSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCSD-100302
 Run File Name B220806A_007
 Analyzed 08/06/2022 06:11
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Native Analytes

Compound	Known Conc. ng/L	LCS Conc. Found ng/L	LCS Rec. %	LCSD Conc. Found ng/L	LCSD Rec. %	RPD %	Recovery Limits	Qualifiers
PFBA	4.0	4.3	108	4.4	112	4.2	50-150	
PFPeA	4.0	4.5	115	4.4	112	2.6	50-150	
HFPO-DA	4.0	4.0	101	3.9	98	3.0	50-150	
PFBS	3.5	3.8	107	3.8	109	1.7	50-150	
PFHxA	4.0	4.4	112	4.8	121	8.0	50-150	
4:2 FTS	3.7	3.9	107	4.1	112	4.6	50-150	
PFPeS	3.7	4.0	107	4.0	109	1.2	50-150	
PFHpA	4.0	4.2	107	4.3	108	1.2	50-150	
DONA	3.7	4.2	112	3.9	105	6.2	50-150	
PFHxS	3.6	3.7	103	3.9	107	4.1	50-150	
PFOA	4.0	4.6	117	4.2	105	10.5	50-150	
6:2 FTS	3.8	3.7	98	3.8	102	4.4	50-150	
PFHpS	3.8	3.9	104	4.0	106	1.6	50-150	
PFNA	4.0	4.2	107	4.2	106	0.8	50-150	
PFOSAm	4.0	3.9	99	4.1	105	5.2	50-150	
PFOS	3.7	3.8	105	3.9	106	1.6	50-150	
MeFOSA	4.0	3.6	90	4.1	103	13.3	50-150	
PFDA	4.0	4.3	108	3.4	87	21.3	50-150	
EtFOSAm	4.0	4.0	102	3.7	95	7.6	50-150	
8:2 FTS	3.8	3.9	101	3.9	102	0.9	50-150	
9-CI-PF3ON	3.7	4.0	109	4.3	117	6.8	50-150	
PFNS	3.8	3.8	101	4.4	117	14.6	50-150	
PFUnDA	4.0	3.6	91	4.0	101	10.2	50-150	
NMeFOSAA	4.0	4.3	110	4.4	111	1.0	50-150	
NEtFOSAA	4.0	3.9	99	4.0	102	3.0	50-150	
PFDS	3.8	3.5	93	4.1	108	14.8	50-150	
PFDOA	4.0	4.9	123	4.1	103	17.6	50-150	
MeFOSE	4.0	3.3	84	3.7	94	11.9	50-150	
EtFOSE	4.0	4.0	102	3.8	96	5.9	50-150	
11-CI-PF3OUdS	3.7	3.6	98	4.0	107	8.9	50-150	
PFTTrDA	4.0	4.3	108	4.2	106	2.0	50-150	
PFDoS	3.8	3.5	92	3.8	100	8.5	50-150	
PFTDA	4.0	4.9	124	4.3	108	14.2	50-150	

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LCSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCSD-100302
 Run File Name B220806A_007
 Analyzed 08/06/2022 06:11
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.81	5.80	1664	
13C4 PFOA	N/A	N/A	7.07	7.07	2017	
13C2 PFDA	N/A	N/A	8.41	8.39	1884	
13C4 PFOS	N/A	N/A	8.90	8.88	2130	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.29	4.30	1945	
13C5 PFPeA	N/A	N/A	5.15	5.15	2771	
13C3 PFBS	N/A	N/A	6.05	6.05	6607	
13C2 4:2FTS	N/A	N/A	5.55	5.54	929	
13C5 PFHxA	N/A	N/A	5.81	5.80	2215	
13C4 PFHpA	N/A	N/A	6.44	6.43	1656	
13C3 PFHxS	N/A	N/A	7.49	7.49	2712	
13C2 6:2FTS	N/A	N/A	6.75	6.74	2942	
13C8 PFOA	N/A	N/A	7.08	7.07	2304	
13C9 PFNA	N/A	N/A	7.73	7.72	1907	
13C8 PFOS	N/A	N/A	8.90	8.88	2492	
13C2 8:2FTS	N/A	N/A	8.02	8.01	73715	
13C6 PFDA	N/A	N/A	8.40	8.39	1700	
d3-MeFOSAA	N/A	N/A	8.26	8.25	1495	
13C8 PFOSA	N/A	N/A	10.67	10.61	1874	
d5-EtFOSAA	N/A	N/A	8.56	8.54	2017	
13C7 PFUdA	N/A	N/A	9.09	9.07	2856	
13C2 PFDoA	N/A	N/A	9.78	9.74	1478	
13C2 PFTeDA	N/A	N/A	11.10	11.07	941	
13C3 HFPO-DA	N/A	N/A	6.07	6.06	1761	
d7-N-MeFOSE	N/A	N/A	12.49	12.45	54	
d9-N-EtFOSE	N/A	N/A	12.94	12.92	671	
d3-N-MeFOSA	N/A	N/A	12.69	12.66	1601	
d5-N-EtFOSA	N/A	N/A	13.10	13.08	769	

REPORT OF LABORATORY ANALYSIS

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LCSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCSD-100302
 Run File Name B220806A_007
 Analyzed 08/06/2022 06:11
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level L

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.30	4.31	172	
PFPeA	N/A	N/A	5.15	5.15	447	
HFPO-DA	0.29	0.27	6.08	6.07	863	
PFBS	0.44	0.45	6.06	6.06	1238	
PFHxA	0.07	0.08	5.82	5.81	351	
4:2 FTS	0.83	0.90	5.55	5.54	3115	
PFPeS	0.41	0.44	6.79	6.79	1380	
PFHpA	0.34	0.35	6.45	6.44	19	
DONA	0.56	0.52	6.68	6.67	1235	
PFHxS	0.39	0.37	7.50	7.49	1161	
PFOA	0.39	0.41	7.08	7.08	208	
6:2 FTS	0.80	0.83	6.75	6.74	670	
PFHpS	0.41	0.36	8.21	8.20	1659	
PFNA	0.13	0.14	7.74	7.73	694	
PFOSAm	N/A	N/A	10.67	10.61	1012	
PFOS	0.37	0.38	8.91	8.90	470	
MeFOSA	0.56	0.55	12.72	12.69	3036	
PFDA	0.21	0.18	8.42	8.40	305	
EtFOSAm	0.63	0.58	13.12	13.10	1067	
8:2 FTS	0.93	0.99	8.03	8.02	377978	
9-Cl-PF3ON	0.06	0.06	9.41	9.39	872	
PFNS	0.52	0.51	9.60	9.58	1263	
PFUnDA	0.17	0.17	9.09	9.08	402	
NMeFOSAA	0.82	0.86	8.27	8.26	2126	
NEtFOSAA	0.61	0.66	8.57	8.55	359	
PFDS	0.35	0.38	10.28	10.24	1888	
PFDOA	0.19	0.18	9.78	9.75	317	
MeFOSE	N/A	N/A	12.53	12.49	617	
EtFOSE	0.00	0.00	12.98	12.96	350	
11-Cl-PF3OUdS	0.02	0.02	10.76	10.72	632	
PFTrDA	0.12	0.14	10.46	10.42	265	
PFDoS	0.50	0.48	11.51	11.48	2742	
PFTDA	0.31	0.32	11.11	11.07	252	

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MS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10616212027-MS
 Run File Name B220804B_029
 Analyzed 08/05/2022 10:11
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers
13C2_PFHxA	0.96	1.1	112	50-150	
13C4_PFOA	0.96	1.0	109	50-150	
13C2_PFDA	0.96	1.3	137	50-150	
13C4_PFOS	0.92	1.2	134	50-150	

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers
13C4_PFBFA	0.96	0.85	89	25-150	
13C5_PFPeA	0.96	0.92	96	25-150	
13C3_PFBFS	0.89	0.88	98	25-150	
13C2_4:2FTS	0.90	0.90	100	25-150	
13C5_PFHxA	0.96	0.87	91	25-150	
13C4_PFHpA	0.96	0.99	103	25-150	
13C3_PFHxS	0.91	0.85	94	25-150	
13C2_6:2FTS	0.91	0.89	98	25-150	
13C8_PFOA	0.96	0.94	98	25-150	
13C9_PFNA	0.96	0.96	100	25-150	
13C8_PFOS	0.92	0.95	103	25-150	
13C2_8:2FTS	0.92	1.4	147	25-150	
13C6_PFDA	0.96	0.99	104	25-150	
d3-MeFOSAA	0.96	0.95	99	25-150	
13C8_PFOSA	0.96	0.84	87	25-150	
d5-EtFOSAA	0.96	0.99	103	25-150	
13C7_PFUdA	0.96	0.95	99	25-150	
13C2_PFDaA	0.96	1.1	117	25-150	
13C2_PFTeDA	0.96	0.92	96	25-150	
13C3_HFPO-DA	0.96	0.85	89	25-150	
d7-N-MeFOSE	0.96	0.33	34	10-150	
d9-N-EtFOSE	0.96	0.27	28	10-150	
d3-N-MeFOSA	0.96	0.084	9	10-150	R
d5-N-EtFOSA	0.96	0.055	6	10-150	R

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MS Analysis Summary
 PFAS by Isotope Dilution

Page 2 of 4

Lab Sample ID 10616212027-MS
 Run File Name B220804B_029
 Analyzed 08/05/2022 10:11
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level

Native Analytes

Compound	Sample Conc. (ug/Kg)	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	CAS No.
PFBA	0.00	0.19	0.22	113	50-150		375-22-4
PFPeA	0.090 J	0.19	0.26	87	50-150		2706-90-3
HFPO-DA	0.00	0.19	0.21	111	50-150		13252-13-6
PFBS	0.00	0.17	0.18	107	50-150		375-73-5
PFHxA	0.045 J	0.19	0.23	97	50-150		307-24-4
4:2 FTS	0.00	0.18	0.19	104	50-150		757124-72-4
PFPeS	0.00	0.18	0.18	99	50-150		2706-91-4
PFHpA	0.00	0.19	0.23	117	50-150		375-85-9
DONA	0.00	0.18	0.17	95	50-150		919005-14-4
PFHxS	0.00	0.17	0.18	103	50-150		355-46-4
PFOA	0.035 J	0.19	0.21	91	50-150		335-67-1
6:2 FTS	0.00	0.18	0.19	105	50-150		27619-97-2
PFHpS	0.00	0.18	0.18	101	50-150		375-92-8
PFNA	0.053 J	0.19	0.26	106	50-150		375-95-1
PFOSAm	0.00	0.19	0.19	98	50-150		754-91-6
PFOS	0.16	0.18	0.35	108	50-150		1763-23-1
MeFOSA	0.00	0.19	0.19	100	50-150		31506-32-8
PFDA	0.077 J	0.19	0.31	123	50-150		335-76-2
EtFOSAm	0.00	0.19	0.20	106	50-150		4151-50-2
8:2 FTS	0.00	0.18	0.19	103	50-150		39108-34-4
9-CI-PF3ON	0.00	0.18	0.18	101	50-150		756426-58-1
PFNS	0.00	0.18	0.20	111	50-150		68259-12-1
PFUnDA	0.00	0.19	0.21	111	50-150		2058-94-8
NMeFOSAA	0.00	0.19	0.20	102	50-150		2355-31-9
NEtFOSAA	0.00	0.19	0.19	100	50-150		2991-50-6
PFDS	0.00	0.19	0.18	95	50-150		335-77-3
PFDOA	0.00	0.19	0.19	101	50-150		307-55-1
MeFOSE	0.00	0.19	0.18	92	50-150		24448-09-7
EtFOSE	0.00	0.19	0.19	100	50-150		1691-99-2
11-CI-PF3OUdS	0.00	0.18	0.18	99	50-150		763051-92-9
PFTTrDA	0.00	0.19	0.15	80	50-150		72629-94-8
PFDoS	0.00	0.19	0.18	97	50-150		79780-39-5
PFTDA	0.00	0.19	0.20	102	50-150		376-06-7

REPORT OF LABORATORY ANALYSIS

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MS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10616212027-MS
 Run File Name B220804B_029
 Analyzed 08/05/2022 10:11
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.78	5.80	1660	
13C4 PFOA	N/A	N/A	7.05	7.07	2183	
13C2 PFDA	N/A	N/A	8.38	8.39	2014	
13C4 PFOS	N/A	N/A	8.87	8.88	1247	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.29	4.30	2156	
13C5 PFPeA	N/A	N/A	5.13	5.15	2205	
13C3 PFBS	N/A	N/A	6.04	6.05	1273	
13C2 4:2FTS	N/A	N/A	5.53	5.54	639	
13C5 PFHxA	N/A	N/A	5.79	5.80	1912	
13C4 PFHpA	N/A	N/A	6.42	6.43	1721	
13C3 PFHxS	N/A	N/A	7.47	7.49	1507	
13C2 6:2FTS	N/A	N/A	6.72	6.74	935	
13C8 PFOA	N/A	N/A	7.05	7.07	2091	
13C9 PFNA	N/A	N/A	7.71	7.72	2066	
13C8 PFOS	N/A	N/A	8.88	8.88	995	
13C2 8:2FTS	N/A	N/A	8.00	8.01	2135	
13C6 PFDA	N/A	N/A	8.38	8.39	1541	
d3-MeFOSAA	N/A	N/A	8.25	8.25	1873	
13C8 PFOSA	N/A	N/A	10.63	10.61	1401	
d5-EtFOSAA	N/A	N/A	8.54	8.54	1376	
13C7 PFUdA	N/A	N/A	9.06	9.07	2552	
13C2 PFDoA	N/A	N/A	9.74	9.74	958	
13C2 PFTeDA	N/A	N/A	11.05	11.07	1087	
13C3 HFPO-DA	N/A	N/A	6.05	6.06	2144	
d7-N-MeFOSE	N/A	N/A	12.45	12.45	47	
d9-N-EtFOSE	N/A	N/A	12.92	12.92	245	
d3-N-MeFOSA	N/A	N/A	12.66	12.66	543	R
d5-N-EtFOSA	N/A	N/A	13.08	13.08	290	R

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 Run File Name B220804B_029
 Analyzed 08/05/2022 10:11
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.30	4.31	143	
PFPeA	N/A	N/A	5.14	5.15	333	
HFPO-DA	0.26	0.29	6.06	6.07	922	
PFBS	0.45	0.47	6.04	6.06	386	
PFHxA	0.08	0.08	5.80	5.81	192	
4:2 FTS	0.83	0.86	5.53	5.54	821	
PFPeS	0.45	0.47	6.77	6.79	472	
PFHpA	0.32	0.33	6.43	6.44	23	
DONA	0.56	0.55	6.66	6.67	1391	
PFHxS	0.41	0.40	7.48	7.49	359	
PFOA	0.40	0.42	7.06	7.08	178	
6:2 FTS	0.80	0.82	6.72	6.74	507	
PFHpS	0.39	0.40	8.19	8.20	598	
PFNA	0.14	0.15	7.72	7.73	498	
PFOSAm	N/A	N/A	10.64	10.61	901	
PFOS	0.37	0.40	8.89	8.90	538	
MeFOSA	0.63	0.57	12.68	12.69	366	
PFDA	0.16	0.20	8.39	8.40	442	
EtFOSAm	0.57	0.58	13.10	13.10	181	
8:2 FTS	0.85	0.92	8.01	8.02	2008	
9-Cl-PF3ON	0.06	0.06	9.38	9.39	1225	
PFNS	0.47	0.51	9.57	9.58	653	
PFUnDA	0.15	0.15	9.07	9.08	263	
NMeFOSAA	0.80	0.92	8.25	8.26	1357	
NEtFOSAA	0.64	0.63	8.55	8.55	349	
PFDS	0.36	0.37	10.24	10.24	815	
PFDOA	0.19	0.21	9.75	9.75	360	
MeFOSE	N/A	N/A	12.49	12.49	157	
EtFOSE	0.00	0.00	12.95	12.96	118	
11-Cl-PF3OUdS	0.02	0.02	10.71	10.72	887	
PFTrDA	0.18	0.18	10.41	10.42	226	
PFDoS	0.47	0.49	11.47	11.48	1115	
PFTDA	0.24	0.27	11.06	11.07	322	

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MSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10616212027-MSD
 Run File Name B220804B_030
 Analyzed 08/05/2022 10:31
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	RPD	Qualifiers
13C2_PFHxA	0.95	1.1	114	50-150	2.0	
13C4_PFOA	0.95	1.1	113	50-150	3.9	
13C2_PFDA	0.95	1.3	140	50-150	1.7	
13C4_PFOS	0.91	1.2	133	50-150	0.6	

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	RPD	Qualifiers
13C4_PFBFA	0.95	0.81	86	25-150	3.3	
13C5_PFPeA	0.95	0.83	87	25-150	9.6	
13C3_PFBFS	0.88	0.79	90	25-150	9.1	
13C2_4:2FTS	0.89	0.86	96	25-150	3.7	
13C5_PFHxA	0.95	0.86	90	25-150	0.4	
13C4_PFHpA	0.95	0.95	100	25-150	2.7	
13C3_PFHxS	0.90	0.79	88	25-150	6.2	
13C2_6:2FTS	0.90	0.89	99	25-150	1.0	
13C8_PFOA	0.95	0.86	90	25-150	8.1	
13C9_PFNA	0.95	0.83	88	25-150	13.3	
13C8_PFOS	0.91	0.85	94	25-150	9.7	
13C2_8:2FTS	0.91	1.1	126	25-150	15.3	
13C6_PFDA	0.95	1.1	113	25-150	8.9	
d3-MeFOSAA	0.95	0.83	87	25-150	13.3	
13C8_PFOSA	0.95	0.62	65	25-150	28.5	
d5-EtFOSAA	0.95	0.78	83	25-150	21.6	
13C7_PFUdA	0.95	0.80	84	25-150	16.0	
13C2_PFDaA	0.95	1.0	106	25-150	9.9	
13C2_PFTeDA	0.95	0.83	87	25-150	9.4	
13C3_HFPO-DA	0.95	0.76	80	25-150	10.9	
d7-N-MeFOSE	0.95	0.062	7	10-150	135.6	R
d9-N-EtFOSE	0.95	0.078	8	10-150	108.1	R
d3-N-MeFOSA	0.95	0.011	1	10-150	155.0	R
d5-N-EtFOSA	0.95	0.015	2	10-150	115.0	R

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MSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10616212027-MSD
 Run File Name B220804B_030
 Analyzed 08/05/2022 10:31
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level

Native Analytes

Compound	Sample Conc. (ug/Kg)	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	RPD	Qualifiers	CAS No.
PFBA	0.00	0.19	0.22	116	50-150	2.6		375-22-4
PFPeA	0.090 J	0.19	0.29	104	50-150	12.6		2706-90-3
HFPO-DA	0.00	0.19	0.22	117	50-150	5.4		13252-13-6
PFBS	0.00	0.17	0.20	120	50-150	10.9		375-73-5
PFHxA	0.045 J	0.19	0.22	91	50-150	5.6		307-24-4
4:2 FTS	0.00	0.18	0.19	107	50-150	2.8		757124-72-4
PFPeS	0.00	0.18	0.19	106	50-150	6.8		2706-91-4
PFHpA	0.00	0.19	0.20	105	50-150	10.9		375-85-9
DONA	0.00	0.18	0.18	99	50-150	4.1		919005-14-4
PFHxS	0.00	0.17	0.19	111	50-150	7.4		355-46-4
PFOA	0.035 J	0.19	0.22	95	50-150	4.1		335-67-1
6:2 FTS	0.00	0.18	0.19	105	50-150	0.1		27619-97-2
PFHpS	0.00	0.18	0.18	99	50-150	2.6		375-92-8
PFNA	0.053 J	0.19	0.29	126	50-150	13.8		375-95-1
PFOSAm	0.00	0.19	0.20	106	50-150	8.3		754-91-6
PFOS	0.16	0.18	0.32	93	50-150	7.7		1763-23-1
MeFOSA	0.00	0.19	0.24	129	50-150	25.2		31506-32-8
PFDA	0.077 J	0.19	0.24	84	50-150	26.6		335-76-2
EtFOSAm	0.00	0.19	0.18	96	50-150	9.2		4151-50-2
8:2 FTS	0.00	0.18	0.19	105	50-150	1.7		39108-34-4
9-CI-PF3ON	0.00	0.18	0.19	107	50-150	5.7		756426-58-1
PFNS	0.00	0.18	0.22	122	50-150	9.8		68259-12-1
PFUnDA	0.00	0.19	0.24	127	50-150	12.9		2058-94-8
NMeFOSAA	0.00	0.19	0.21	111	50-150	8.3		2355-31-9
NEtFOSAA	0.00	0.19	0.20	104	50-150	4.0		2991-50-6
PFDS	0.00	0.18	0.20	106	50-150	11.5		335-77-3
PFDOA	0.00	0.19	0.18	97	50-150	4.2		307-55-1
MeFOSE	0.00	0.19	0.18	96	50-150	4.0		24448-09-7
EtFOSE	0.00	0.19	0.24	127	50-150	23.0		1691-99-2
11-CI-PF3OUdS	0.00	0.18	0.18	102	50-150	2.7		763051-92-9
PFTTrDA	0.00	0.19	0.18	92	50-150	14.1		72629-94-8
PFDoS	0.00	0.18	0.19	102	50-150	5.3		79780-39-5
PFTDA	0.00	0.19	0.19	102	50-150	0.3		376-06-7

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MSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10616212027-MSD
 Run File Name B220804B_030
 Analyzed 08/05/2022 10:31
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.79	5.80	2449	
13C4 PFOA	N/A	N/A	7.05	7.07	2038	
13C2 PFDA	N/A	N/A	8.39	8.39	1699	
13C4 PFOS	N/A	N/A	8.88	8.88	1158	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.30	4.30	2371	
13C5 PFPeA	N/A	N/A	5.13	5.15	2491	
13C3 PFBS	N/A	N/A	6.04	6.05	979	
13C2 4:2FTS	N/A	N/A	5.53	5.54	530	
13C5 PFHxA	N/A	N/A	5.79	5.80	1873	
13C4 PFHpA	N/A	N/A	6.42	6.43	2112	
13C3 PFHxS	N/A	N/A	7.47	7.49	1390	
13C2 6:2FTS	N/A	N/A	6.72	6.74	776	
13C8 PFOA	N/A	N/A	7.05	7.07	2436	
13C9 PFNA	N/A	N/A	7.71	7.72	2086	
13C8 PFOS	N/A	N/A	8.88	8.88	957	
13C2 8:2FTS	N/A	N/A	8.00	8.01	1061	
13C6 PFDA	N/A	N/A	8.39	8.39	1652	
d3-MeFOSAA	N/A	N/A	8.24	8.25	1290	
13C8 PFOSA	N/A	N/A	10.62	10.61	1511	
d5-EtFOSAA	N/A	N/A	8.54	8.54	1264	
13C7 PFUdA	N/A	N/A	9.06	9.07	1478	
13C2 PFDoA	N/A	N/A	9.74	9.74	1092	
13C2 PFTeDA	N/A	N/A	11.05	11.07	1022	
13C3 HFPO-DA	N/A	N/A	6.04	6.06	1634	
d7-N-MeFOSE	N/A	N/A	12.46	12.45	46	R
d9-N-EtFOSE	N/A	N/A	12.93	12.92	141	R
d3-N-MeFOSA	N/A	N/A	12.66	12.66	165	R
d5-N-EtFOSA	N/A	N/A	13.08	13.08	126	R

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 Run File Name B220804B_030
 Analyzed 08/05/2022 10:31
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220803A02
 Level

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.30	4.31	134	
PFPeA	N/A	N/A	5.14	5.15	323	
HFPO-DA	0.28	0.29	6.06	6.07	712	
PFBS	0.43	0.47	6.04	6.06	389	
PFHxA	0.09	0.08	5.80	5.81	201	
4:2 FTS	0.88	0.86	5.53	5.54	843	
PFPeS	0.42	0.47	6.77	6.79	482	
PFHpA	0.34	0.33	6.43	6.44	19	
DONA	0.58	0.55	6.66	6.67	1157	
PFHxS	0.39	0.40	7.48	7.49	382	
PFOA	0.42	0.42	7.06	7.08	157	
6:2 FTS	0.90	0.82	6.73	6.74	471	
PFHpS	0.34	0.40	8.19	8.20	371	
PFNA	0.13	0.15	7.72	7.73	395	
PFOSAm	N/A	N/A	10.63	10.61	930	
PFOS	0.40	0.40	8.89	8.90	396	
MeFOSA	0.31	0.57	12.70	12.69	334	
PFDA	0.18	0.20	8.39	8.40	304	
EtFOSAm	0.50	0.58	13.10	13.10	50	
8:2 FTS	0.96	0.92	8.01	8.02	438216	
9-Cl-PF3ON	0.06	0.06	9.38	9.39	1090	
PFNS	0.49	0.51	9.57	9.58	614	
PFUnDA	0.13	0.15	9.07	9.08	247	
NMeFOSAA	0.94	0.92	8.25	8.26	179	
NEtFOSAA	0.66	0.63	8.55	8.55	436	
PFDS	0.38	0.37	10.23	10.24	938	
PFDOA	0.21	0.21	9.74	9.75	358	
MeFOSE	N/A	N/A	12.49	12.49	44	
EtFOSE	0.00	0.00	12.96	12.96	78	
11-Cl-PF3OUdS	0.02	0.02	10.71	10.72	925	
PFTrDA	0.15	0.18	10.41	10.42	251	
PFDoS	0.49	0.49	11.47	11.48	1203	
PFTDA	0.30	0.27	11.06	11.07	239	

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Table 3

**PFAS Soil Boring Results
Enbridge Superior Terminal (BRRTS# 02-16-589282)
Superior, Wisconsin**

				Field ID:	PR- AFFExcavation- SB01(14-15)	PR- AFFExcavation- SB01(17-17.5)	NR 720 Residual Contaminant Levels		
				Sample Date:	8/3/2022	8/3/2022	Non-Industrial Direct Contact	Industrial Direct Contact	Soil to Groundwater Pathway
Abbr	Analyte	Cas Number	Units						
Carboxylic Acids:									
PFBA	Perfluorobutanoic acid	375-22-4	ug/kg	< 0.043	< 0.041	--	--	--	--
PFPeA	Perfluoropentanoic acid	2706-90-3	ug/kg	< 0.044	< 0.041	--	--	--	--
PFHxA	Perfluorohexanoic acid	307-24-4	ug/kg	< 0.042	< 0.04	--	--	--	--
PFHpA	Perfluoroheptanoic acid	375-85-9	ug/kg	< 0.053	< 0.05	--	--	--	--
PFOA	Perfluorooctanoic acid	335-67-1	ug/kg	< 0.047	< 0.045	1,260	16,400	--	--
PFNA	Perfluorononanoic acid	375-95-1	ug/kg	< 0.047	< 0.045	--	--	--	--
PFDA	Perfluorodecanoic acid	335-76-2	ug/kg	< 0.035	< 0.033	--	--	--	--
PFUnA	Perfluoroundecanoic acid	2058-94-8	ug/kg	< 0.046	< 0.044	--	--	--	--
PFDoA	Perfluorododecanoic acid	307-55-1	ug/kg	< 0.05	< 0.048	--	--	--	--
PFTTrDA	Perfluorotridecanoic acid	72629-94-8	ug/kg	< 0.049	< 0.046	--	--	--	--
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ug/kg	< 0.052	< 0.05	--	--	--	--
Sulfonic Acids:									
PFBS	Perfluorobutanesulfonic acid	375-73-5	ug/kg	< 0.04	< 0.038	1,260,000	16,400,000	--	--
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ug/kg	< 0.037	< 0.035	--	--	--	--
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ug/kg	< 0.033	< 0.032	--	--	--	--
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ug/kg	< 0.042	< 0.04	--	--	--	--
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ug/kg	< 0.045	< 0.043	1,260	16,400	--	--
PFNS	Perfluorononanesulfonic acid	68259-12-1	ug/kg	< 0.053	< 0.05	--	--	--	--
PFDS	Perfluorodecanesulfonic acid	335-77-3	ug/kg	< 0.043	< 0.041	--	--	--	--
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ug/kg	< 0.04	< 0.038	--	--	--	--
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ug/kg	< 0.035	< 0.033	--	--	--	--
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ug/kg	< 0.063	< 0.06	--	--	--	--
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ug/kg	< 0.067	< 0.063	--	--	--	--
Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols:									
PFOSA	Perfluorooctane sulfonamide	754-91-6	ug/kg	< 0.045	< 0.043	--	--	--	--
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ug/kg	< 0.042 UR	< 0.039 UR	--	--	--	--
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ug/kg	< 0.039 UR	< 0.037 UR	--	--	--	--
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ug/kg	< 0.043	< 0.041	--	--	--	--
EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ug/kg	< 0.061	< 0.058	--	--	--	--
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ug/kg	< 0.046 UR	< 0.044 UR	--	--	--	--
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ug/kg	< 0.049 UR	< 0.047 UR	--	--	--	--
Replacement Chemicals:									
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	ug/kg	< 0.042	< 0.04	--	--	--	--
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ug/kg	< 0.055	< 0.053	--	--	--	--
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ug/kg	< 0.038	< 0.036	--	--	--	--
11Cl-PF3OUs	11-chloroeicosasfluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ug/kg	< 0.039	< 0.037	--	--	--	--

Note:
 ug/kg - micrograms per kilogram.
 J - Estimated concentration (+/- indicate the direction of bias).
 R - Rejected due to serious deficiencies in meeting QC criteria.
 Non-detects reported as < MDL.

Report Prepared for:

Leo Linnemanstons
AECOM
1555 N. RiverCenter Drive
Milwaukee WI 53212

**REPORT OF
LABORATORY
ANALYSIS
FOR PFAAs**

Report Prepared Date:

August 29, 2022

Report Information:

Pace Project #: 10620121
Sample Receipt Date: 08/05/2022
Client Project #: Superior Terminal PFAS/60683
Client Sub PO #: 145286
State Cert #: 999407970

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PFAA Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Kirsten Hogberg, your Pace Project Manager.

This report has been reviewed by:



August 29, 2022

Kirsten Hogberg, Project Manager
(612) 607-6407
(612) 607-6444 (fax)
kirsten.hogberg@pacelabs.com



Report of Laboratory Analysis

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The results relate only to the samples included in this report.

DISCUSSION

This report presents the results from the analyses performed on five samples, one matrix spike, and one matrix spike duplicate submitted by a representative of AECOM. The samples were analyzed for thirty-three perfluorinated compounds using Wisconsin DNR guidance for PFAS. Reporting limits were set to MDL levels. Results for solid samples are expressed on dry weight basis.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank was free of the target perfluorinated compounds at the reporting limits. This indicates that the sample processing procedures did not significantly contribute to the analyte content determined for the sample material.

A laboratory spike sample was also prepared with each sample batch using clean reference matrix that had been fortified with native standards. The recovery results were within the method limits. This spike indicates that extraction performed as expected.

On the matrix spikes there are several analytes that are marked R as the recoveries are diminished or elevated from the expected levels. These deviations may be due to the presence of the affected analytes in the sample material and/or sample inhomogeneity. With the exception of MeFOSA, EtFOSA_m, and EtFOSE, the RPDs (relative percent differences) between one designated matrix spike and its duplicate were within the method limits.

Diminished extracted internal standard (EIS) recovery ("R" flagged) were present in samples and BLANK-100572, however, the use of the isotope dilution method generally precludes any adverse impact on those individual native compounds that have a directly associated standard.

Selected samples have recoveries less than 1% for selected EIS. The results for these native compounds should be considered estimated.

The four injection internal standards (13C4 PFOA, 13C4 PFOS, 13C2_PFDA, and 13C2_PFHxA) pass for each analysis in the batch verifying that the instrument detector is working as expected.

Values were flagged "I" where incorrect isotope ratios were obtained. Results that were below the calibration range were flagged "J".

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Mississippi	MN00064
Alabama	40770	Missouri	10100
Alaska-DW	MN00064	Montana	CERT0092
Alaska-UST	17-009	Nebraska	NE-OS-18-06
Arizona	AZ0014	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
Arkansas-DW	MN00064	New Jersey	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina-	27700
Connecticut	PH-0256	North Carolina-	530
Florida	E87605	North Dakota	R-036
Georgia	959	Ohio-DW	41244
Hawaii	MN00064	Ohio-VAP (170	CL101
Idaho	MN00064	Ohio-VAP (180	CL110
Illinois	200011	Oklahoma	9507
Indiana	C-MN-01	Oregon- rimary	MN300001
Iowa	368	Oregon-Second	MN200001
Kansas	E-10167	Pennsylvania	68-00563
Kentucky-DW	90062	Puerto Rico	MN00064
Kentucky-WW	90062	South Carolina	74003
Louisiana-DEQ	AI-84596	Tennessee	TN02818
Louisiana-DW	MN00064	Texas	T104704192
Maine	MN00064	Utah	MN00064
Maryland	322	Vermont	VT-027053137
Michigan	9909	Virginia	460163
Minnesota	027-053-137	Washington	C486
Minnesota-Ag	via MN 027-053	West Virginia-D	382
Minnesota-Petr	1240	West Virginia-D	9952C
		Wisconsin	999407970
		Wyoming-UST	via A2LA 2926.

REPORT OF LABORATORY ANALYSIS

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Appendix A

Sample Management

REPORT OF LABORATORY ANALYSIS

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Sample ID Cross Reference

<u>Client Sample ID</u>	<u>Pace Sample ID</u>	<u>Date Received</u>	<u>Sample Type</u>
PR-AFFExcavation-SB01(14-15)	10620121001	08/05/2022	Solid
PR-AFFExcavation-SB01(17-17.5)	10620121002	08/05/2022	Solid
PR-ERB-03	10620121003	08/05/2022	Water
PR-FB-02	10620121004	08/05/2022	Water
PR-DECON-02	10620121005	08/05/2022	Water

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

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

LAB USE ONLY- Affix Workorder/Label

WO#: 10620121



10620121

ALL SHA

Container Preservative

U U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Company: **AELCOM**

Billing Information: **Bill to AELCOM**

Address: **230 W. Superior St STE 400, Duluth, MN 55802**

Report To: **leo.linnemanstons@aelcom.com**

Email To:

Copy To: **davis.albrecht@aelcom.com**

Site Collection Info/Address: **Enbridge Superior Terminal**

Customer Project Name/Number: **Superior Terminal PFAS/60683192 WI Superior**

State: County/City: Time Zone Collected: [] PT [] MT [] CT [] ET

Phone: **608-829-8208**

Site/Facility ID #: **Enbridge Superior-Term**

Compliance Monitoring? [] Yes [] No

Email: **see above**

Purchase Order #: **M5286**

DW PWS ID #: DW Location Code:

Collected By (print): **William J Montz**

Quote #:

Immediately Packed on Ice: [] Yes [] No

Collected By (signature): **WJ Montz**

Turnaround Date Required: **Standard**

Field Filtered (if applicable): [] Yes [] No

Sample Disposal: [] Dispose as appropriate [] Return [] Archive: [] Hold:

Rush: [] Same Day [] Next Day [] 2 Day [] 3 Day [] 4 Day [] 5 Day (Expedite Charges Apply)

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
PR-AFFFExcavation-SB01(14-15)	SL	G	8/3/22	1205				1
PR-AFFFExcavation-SB01(17-17.5)	SL	G	8/3/22	1220				1
PR-ERB-03	WT	G	8/3/22	1155				1
PR-FB-02	WT	G	8/3/22	1230				1
PR-DECOM-02	WT	G	8/3/22	1235				1

Analyses	
WIS ID36 (PFAS)	WIS ID36 (PFAS) Blanks

Lab Profile/Line: **44709**

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA

Custody Signatures Present Y N NA

Collector Signature Present Y N NA

Bottles Intact Y N NA

Correct Bottles Y N NA

Sufficient Volume Y N NA

Samples Received on Ice Y N NA

VOA - Headspace Acceptable Y N NA

USDA Regulated Soils Y N NA

Samples in Holding Time Y N NA

Residual Chlorine Present Y N NA

Cl Strips: _____

Sample pH Acceptable Y N NA

pH Strips: _____

Sulfide Present Y N NA

Lead Acetate Strips: _____

LAB USE ONLY: Lab Sample # / Comments:

OC
C02
C03
C01
C04

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

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

Lab Sample Temperature Info:

Packing Material Used:

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

Lab Tracking #: **2801947**

Temp Blank Received: Y N NA

Relinquished by/Company: (Signature) **WJ Montz AELCOM**

Date/Time: **8/4/22 0807**

Received by/Company: (Signature) **Didacido Pace**

Cooler 1 Temp Upon Receipt: **5.1** oC

Relinquished by/Company: (Signature) **Didacido Pace**

Date/Time: **8/4/22 08:07**

Received by/Company: (Signature) **Didacido Pace**

Cooler 1 Therm Corr. Factor: **0** oC

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Cooler 1 Corrected Temp: **5.1** oC

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Comments:

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Trip Blank Received: Y N NA

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

HCL MeOH TSP Other

Report No.: 10620121_ID36_DFR

Page 6 of 34

Non-Conformance(s): YES / NO

Page: **1** of: **1**



DC#_Title: ENV-FRM-MIN4-0150 v05_Sample Condition Upon Receipt (SCUR)

Effective Date: 04/12/2022

Sample Condition Upon Receipt

Client Name: AECOM

Project #:

WO#: 10620121
PM: KNH
CLIENT: AECOM
Due Date: 09/07/22

Courier: Fed Ex, UPS, USPS, Client, Pace, SpeeDee, Commercial

See Exceptions: ENV-FRM-MIN4-0142

Tracking Number:

Custody Seal on Cooler/Box Present? Yes No

Seals Intact? Yes No

Biological Tissue Frozen? Yes No N/A

Packing Material: Bubble Wrap, Bubble Bags, None, Other

Temp Blank? Yes No

Thermometer: T1(0461), T2(1336), T3(0459), T4(0254), T5(0489), T6(0235), T7(0042), 0133929/1710, 122639816, 140792808

Type of Ice: Wet, Blue, None, Dry, Melted

Did Samples Originate in West Virginia? Yes No Were All Container Temps Taken? Yes No

Temp should be above freezing to 6°C

Cooler Temp Read w/temp blank: 0.2 °C

Average Corrected Temp (no temp blank only): °C See Exceptions ENV-FRM-MIN4-0142 1 Container

Correction Factor: 10.1 Cooler Temp Corrected w/temp blank: 0.3 °C

USDA Regulated Soil: (N/A, water sample/Other:)

Date/Initials of Person Examining Contents: 8/5/22

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist ENV-FRM-MIN4-0154 and include with SCUR/COC paperwork.

Table with 2 columns: Location (check one) and COMMENTS. Rows include Chain of Custody Present and Filled Out?, Chain of Custody Relinquished?, Sampler Name and/or Signature on COC?, Samples Arrived within Hold Time?, Short Hold Time Analysis (<72 hr)?, Rush Turn Around Time Requested?, Sufficient Volume?, Correct Containers Used?, -Pace Containers Used?, Containers Intact?, Field Filtered Volume Received for Dissolved Tests?, Is sufficient information available to reconcile the samples to the COC?, Matrix: Water, Soil, Oil, Other-, All containers needing acid/base preservation have been checked?, All containers needing preservation are found to be in compliance with EPA recommendation?, Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS, Headspace in Methyl Mercury Container?, Extra labels present on soil VOA or WIDRO containers?, Headspace in VOA Vials (greater than 6mm)?, Trip Blank Present?, Trip Blank Custody Seals Present?.

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: Comments/Resolution:

Field Data Required? Yes No

Date/Time:

Project Manager Review: Kirsten Hoberg

Date: 8/8/2022

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by:

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10620121001	PR-AFFExcavation-SB01(14-15)	SW3535	33646	PFAS-36	B220823B_00
10620121002	PR-AFFExcavation-SB01(17-17.5)	SW3535	33646	PFAS-36	B220823B_00
10620121003	PR-ERB-03	SW3535	33668	PFAS-36	B220817C_06
10620121004	PR-FB-02	SW3535	33668	PFAS-36	B220817C_06
10620121005	PR-DECON-02	SW3535	33668	PFAS-36	B220817C_06



Reporting Flags

- A = Reporting Limit based on signal to noise (EDL)
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Isotope ratio out of specification
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

REPORT OF LABORATORY ANALYSIS

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Appendix B

Sample Analysis Summary

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-AFFFExcavation-SB01(14-15)	Total Amount Extracted	5.06g
Lab Sample ID	10620121001	Percent Moisture	35.2872%
Lab File ID	B220823B_007	Dry Weight Extracted	3.28g
Matrix	Soil	Ical ID	220817B02
Collected	08/03/2022 12:05	CCal File	B220823B_001
Received	08/05/2022 18:45	Ending CCal File	B220823B_011
Extraction Date	08/10/2022 16:12	Blank File	B220817C_006

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.15	0.043	0.043	1	375-22-4		08/23/2022 15:16
PFPeA	ND	0.15	0.044	0.044	1	2706-90-3		08/23/2022 15:16
HFPO-DA	ND	0.15	0.042	0.042	1	13252-13-6		08/23/2022 15:16
PFBS	ND	0.14	0.040	0.040	1	375-73-5		08/23/2022 15:16
PFHxA	ND	0.15	0.042	0.042	1	307-24-4		08/23/2022 15:16
4:2 FTS	ND	0.14	0.035	0.035	1	757124-72-4		08/23/2022 15:16
PFPeS	ND	0.14	0.037	0.037	1	2706-91-4		08/23/2022 15:16
PFHpA	ND	0.15	0.053	0.053	1	375-85-9		08/23/2022 15:16
DONA	ND	0.14	0.055	0.055	1	919005-14-4		08/23/2022 15:16
PFHxS	ND	0.14	0.033	0.033	1	355-46-4		08/23/2022 15:16
PFOA	ND	0.15	0.047	0.047	1	335-67-1		08/23/2022 15:16
6:2 FTS	ND	0.15	0.063	0.063	1	27619-97-2		08/23/2022 15:16
PFHpS	ND	0.15	0.042	0.042	1	375-92-8		08/23/2022 15:16
PFNA	ND	0.15	0.047	0.047	1	375-95-1		08/23/2022 15:16
PFOSAm	ND	0.15	0.045	0.045	1	754-91-6		08/23/2022 15:16
PFOS	ND	0.14	0.045	0.045	1	1763-23-1		08/23/2022 15:16
MeFOSA	ND	0.15	0.042	0.042	1	31506-32-8		08/23/2022 15:16
PFDA	ND	0.15	0.035	0.035	1	335-76-2		08/23/2022 15:16
EtFOSAm	ND	0.15	0.039	0.039	1	4151-50-2		08/23/2022 15:16
8:2 FTS	ND	0.15	0.067	0.067	1	39108-34-4		08/23/2022 15:16
9-CI-PF3ON	ND	0.14	0.038	0.038	1	756426-58-1		08/23/2022 15:16
PFNS	ND	0.15	0.053	0.053	1	68259-12-1		08/23/2022 15:16
PFUnDA	ND	0.15	0.046	0.046	1	2058-94-8		08/23/2022 15:16
NMeFOSAA	ND	0.15	0.043	0.043	1	2355-31-9		08/23/2022 15:16
NEtFOSAA	ND	0.15	0.061	0.061	1	2991-50-6		08/23/2022 15:16
PFDS	ND	0.15	0.043	0.043	1	335-77-3		08/23/2022 15:16
PFDOA	ND	0.15	0.050	0.050	1	307-55-1		08/23/2022 15:16
MeFOSE	ND	0.15	0.046	0.046	1	24448-09-7		08/23/2022 15:16
EtFOSE	ND	0.15	0.049	0.049	1	1691-99-2		08/23/2022 15:16
11-CI-PF3OUdS	ND	0.14	0.039	0.039	1	763051-92-9		08/23/2022 15:16
PFTTrDA	ND	0.15	0.049	0.049	1	72629-94-8		08/23/2022 15:16
PFDoS	ND	0.15	0.040	0.040	1	79780-39-5		08/23/2022 15:16
PFTDA	ND	0.15	0.052	0.052	1	376-06-7		08/23/2022 15:16

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-AFFFExcavation-SB01(14-15)	Total Amount Extracted	5.06g
Lab Sample ID	10620121001	Percent Moisture	35.2872%
Lab File ID	B220823B_007	Dry Weight Extracted	3.28g
Matrix	Soil	Ical ID	220817B02
Collected	08/03/2022 12:05	CCal File	B220823B_001
Received	08/05/2022 18:45	Ending CCal File	B220823B_011
Extraction Date	08/10/2022 16:12	Blank File	B220817C_006

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	1.5	1.3	82	50-150		08/23/2022 15:16
13C4 PFOA	1.5	1.2	80	50-150		08/23/2022 15:16
13C2 PFDA	1.5	1.1	75	50-150		08/23/2022 15:16
13C4 PFOS	1.5	1.2	82	50-150		08/23/2022 15:16

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	1.5	1.1	71	25-150		08/23/2022 15:16
13C5 PFPeA	1.5	1.1	71	25-150		08/23/2022 15:16
13C3 PFBS	1.4	0.94	66	25-150		08/23/2022 15:16
13C2 4:2FTS	1.4	0.99	69	25-150		08/23/2022 15:16
13C5 PFHxA	1.5	1.1	73	25-150		08/23/2022 15:16
13C4 PFHpA	1.5	1.1	72	25-150		08/23/2022 15:16
13C3 PFHxS	1.4	1.0	71	25-150		08/23/2022 15:16
13C2 6:2FTS	1.4	0.96	67	25-150		08/23/2022 15:16
13C8 PFOA	1.5	1.0	66	25-150		08/23/2022 15:16
13C9 PFNA	1.5	0.98	64	25-150		08/23/2022 15:16
13C8 PFOS	1.5	1.0	70	25-150		08/23/2022 15:16
13C2 8:2FTS	1.5	0.95	65	25-150		08/23/2022 15:16
13C6 PFDA	1.5	1.2	76	25-150		08/23/2022 15:16
d3-MeFOSAA	1.5	1.2	76	25-150		08/23/2022 15:16
13C8 PFOSA	1.5	0.83	54	25-150		08/23/2022 15:16
d5-EtFOSAA	1.5	0.96	63	25-150		08/23/2022 15:16
13C7 PFUdA	1.5	1.0	66	25-150		08/23/2022 15:16
13C2 PFDaA	1.5	1.2	80	25-150		08/23/2022 15:16
13C2 PFTeDA	1.5	0.76	50	25-150		08/23/2022 15:16
13C3 HFPO-DA	1.5	1.2	79	25-150		08/23/2022 15:16
d7-N-MeFOSE	1.5	0.0061	0	10-150	R	08/23/2022 15:16
d9-N-EtFOSE	1.5	0.010	1	10-150	R	08/23/2022 15:16
d3-N-MeFOSA	1.5	0.00056	0	10-150	R	08/23/2022 15:16
d5-N-EtFOSA	1.5	0.0015	0	10-150	R	08/23/2022 15:16

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-AFFFExcavation-SB01(14-15)	Total Amount Extracted	5.06g
Lab Sample ID	10620121001	Percent Moisture	35.2872%
Lab File ID	B220823B_007	Dry Weight Extracted	3.28g
Matrix	Soil	Ical ID	220817B02
Collected	08/03/2022 12:05	CCal File	B220823B_001
Received	08/05/2022 18:45	Ending CCal File	B220823B_011
Extraction Date	08/10/2022 16:12	Blank File	B220817C_006

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.86	5.77	11		08/23/2022 15:16
13C4 PFOA	N/A	N/A	7.08	7.07	14		08/23/2022 15:16
13C2 PFDA	N/A	N/A	8.42	8.39	14		08/23/2022 15:16
13C4 PFOS	N/A	N/A	8.89	8.88	13		08/23/2022 15:16

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.29	4.23	20		08/23/2022 15:16
13C5 PFPeA	N/A	N/A	5.20	5.10	21		08/23/2022 15:16
13C3 PFBS	N/A	N/A	6.09	6.09	14		08/23/2022 15:16
13C2 4:2FTS	N/A	N/A	5.60	5.51	41		08/23/2022 15:16
13C5 PFHxA	N/A	N/A	5.86	5.78	19		08/23/2022 15:16
13C4 PFHpA	N/A	N/A	6.47	6.42	12		08/23/2022 15:16
13C3 PFHxS	N/A	N/A	7.49	7.47	11		08/23/2022 15:16
13C2 6:2FTS	N/A	N/A	6.76	6.73	11		08/23/2022 15:16
13C8 PFOA	N/A	N/A	7.08	7.06	18		08/23/2022 15:16
13C9 PFNA	N/A	N/A	7.74	7.71	13		08/23/2022 15:16
13C8 PFOS	N/A	N/A	8.89	8.86	19		08/23/2022 15:16
13C2 8:2FTS	N/A	N/A	8.03	8.00	75		08/23/2022 15:16
13C6 PFDA	N/A	N/A	8.42	8.38	12		08/23/2022 15:16
d3-MeFOSAA	N/A	N/A	8.28	8.25	11		08/23/2022 15:16
13C8 PFOSA	N/A	N/A	10.54	10.42	96		08/23/2022 15:16
d5-EtFOSAA	N/A	N/A	8.57	8.54	22		08/23/2022 15:16
13C7 PFUdA	N/A	N/A	9.09	9.07	17		08/23/2022 15:16
13C2 PFDoA	N/A	N/A	9.75	9.71	11		08/23/2022 15:16
13C2 PFTeDA	N/A	N/A	11.04	11.02	12		08/23/2022 15:16
13C3 HFPO-DA	N/A	N/A	6.11	6.04	13		08/23/2022 15:16
d7-N-MeFOSE	N/A	N/A	12.47	12.44	16	R	08/23/2022 15:16
d9-N-EtFOSE	N/A	N/A	12.94	12.92	77	R	08/23/2022 15:16
d3-N-MeFOSA	N/A	N/A	12.63	12.65	8	R	08/23/2022 15:16
d5-N-EtFOSA	N/A	N/A	13.09	13.07	35	R	08/23/2022 15:16

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-AFFFExcavation-SB01(14-15)	Total Amount Extracted	5.06g
Lab Sample ID	10620121001	Percent Moisture	35.2872%
Lab File ID	B220823B_007	Dry Weight Extracted	3.28g
Matrix	Soil	Ical ID	220817B02
Collected	08/03/2022 12:05	CCal File	B220823B_001
Received	08/05/2022 18:45	Ending CCal File	B220823B_011
Extraction Date	08/10/2022 16:12	Blank File	B220817C_006

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	0.00	4.23	ND		08/23/2022 15:16
PFPeA	N/A	N/A	5.21	5.21	ND		08/23/2022 15:16
HFPO-DA	0.46	0.26	6.12	6.07	ND		08/23/2022 15:16
PFBS	0.33	0.43	6.10	6.08	ND		08/23/2022 15:16
PFHxA	0.09	0.09	5.87	5.85	ND		08/23/2022 15:16
4:2 FTS	0.00	0.81	0.00	5.54	ND		08/23/2022 15:16
PFPeS	0.56	0.42	6.80	6.79	ND		08/23/2022 15:16
PFHpA	0.26	0.32	6.48	6.44	ND		08/23/2022 15:16
DONA	0.36	0.56	6.69	6.67	ND		08/23/2022 15:16
PFHxS	0.32	0.37	7.50	7.49	ND		08/23/2022 15:16
PFOA	0.57	0.39	7.09	7.08	ND		08/23/2022 15:16
6:2 FTS	0.74	0.93	6.76	6.74	ND		08/23/2022 15:16
PFHpS	0.00	0.41	0.00	8.20	ND		08/23/2022 15:16
PFNA	0.20	0.12	7.75	7.73	ND		08/23/2022 15:16
PFOSAm	N/A	N/A	10.54	10.44	ND		08/23/2022 15:16
PFOS	0.41	0.35	8.89	8.90	ND		08/23/2022 15:16
MeFOSA	0.00	0.47	0.00	12.69	ND		08/23/2022 15:16
PFDA	0.00	0.18	0.00	8.40	ND		08/23/2022 15:16
EtFOSAm	0.00	0.50	0.00	13.10	ND		08/23/2022 15:16
8:2 FTS	0.00	0.96	0.00	8.02	ND		08/23/2022 15:16
9-CI-PF3ON	0.00	0.06	0.00	9.39	ND		08/23/2022 15:16
PFNS	0.00	0.47	0.00	9.58	ND		08/23/2022 15:16
PFUnDA	0.00	0.14	0.00	9.05	ND		08/23/2022 15:16
NMeFOSAA	0.00	0.82	0.00	8.26	ND		08/23/2022 15:16
NEtFOSAA	0.00	0.68	0.00	8.55	ND		08/23/2022 15:16
PFDS	0.00	0.32	0.00	10.19	ND		08/23/2022 15:16
PFDOA	0.00	0.15	0.00	9.72	ND		08/23/2022 15:16
MeFOSE	N/A	N/A	0.00	12.45	ND		08/23/2022 15:16
EtFOSE	0.00	0.00	0.00	12.92	ND		08/23/2022 15:16
11-CI-PF3OUdS	0.00	0.03	0.00	10.66	ND		08/23/2022 15:16
PFTTrDA	0.00	0.16	0.00	10.37	ND		08/23/2022 15:16
PFDoS	0.00	0.46	0.00	11.43	ND		08/23/2022 15:16
PFTDA	0.00	0.26	0.00	11.02	ND		08/23/2022 15:16

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-AFFExcavation-SB01(17-17.5)	Total Amount Extracted	5.28g
Lab Sample ID	10620121002	Percent Moisture	34.5776%
Lab File ID	B220823B_008	Dry Weight Extracted	3.46g
Matrix	Soil	Ical ID	220817B02
Collected	08/03/2022 12:20	CCal File	B220823B_001
Received	08/05/2022 18:45	Ending CCal File	B220823B_011
Extraction Date	08/10/2022 16:12	Blank File	B220817C_006

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.14	0.041	0.041	1	375-22-4		08/23/2022 15:36
PFPeA	ND	0.14	0.041	0.041	1	2706-90-3		08/23/2022 15:36
HFPO-DA	ND	0.14	0.040	0.040	1	13252-13-6		08/23/2022 15:36
PFBS	ND	0.13	0.038	0.038	1	375-73-5		08/23/2022 15:36
PFHxA	ND	0.14	0.040	0.040	1	307-24-4		08/23/2022 15:36
4:2 FTS	ND	0.14	0.033	0.033	1	757124-72-4		08/23/2022 15:36
PFPeS	ND	0.14	0.035	0.035	1	2706-91-4		08/23/2022 15:36
PFHpA	ND	0.14	0.050	0.050	1	375-85-9		08/23/2022 15:36
DONA	ND	0.14	0.053	0.053	1	919005-14-4		08/23/2022 15:36
PFHxS	ND	0.13	0.032	0.032	1	355-46-4		08/23/2022 15:36
PFOA	ND	0.14	0.045	0.045	1	335-67-1		08/23/2022 15:36
6:2 FTS	ND	0.14	0.060	0.060	1	27619-97-2		08/23/2022 15:36
PFHpS	ND	0.14	0.040	0.040	1	375-92-8		08/23/2022 15:36
PFNA	ND	0.14	0.045	0.045	1	375-95-1		08/23/2022 15:36
PFOSAm	ND	0.14	0.043	0.043	1	754-91-6		08/23/2022 15:36
PFOS	ND	0.13	0.043	0.043	1	1763-23-1		08/23/2022 15:36
MeFOSA	ND	0.14	0.039	0.039	1	31506-32-8		08/23/2022 15:36
PFDA	ND	0.14	0.033	0.033	1	335-76-2		08/23/2022 15:36
EtFOSAm	ND	0.14	0.037	0.037	1	4151-50-2		08/23/2022 15:36
8:2 FTS	ND	0.14	0.063	0.063	1	39108-34-4		08/23/2022 15:36
9-CI-PF3ON	ND	0.13	0.036	0.036	1	756426-58-1		08/23/2022 15:36
PFNS	ND	0.14	0.050	0.050	1	68259-12-1		08/23/2022 15:36
PFUnDA	ND	0.14	0.044	0.044	1	2058-94-8		08/23/2022 15:36
NMeFOSAA	ND	0.14	0.041	0.041	1	2355-31-9		08/23/2022 15:36
NEtFOSAA	ND	0.14	0.058	0.058	1	2991-50-6		08/23/2022 15:36
PFDS	ND	0.14	0.041	0.041	1	335-77-3		08/23/2022 15:36
PFDOA	ND	0.14	0.048	0.048	1	307-55-1		08/23/2022 15:36
MeFOSE	ND	0.14	0.044	0.044	1	24448-09-7		08/23/2022 15:36
EtFOSE	ND	0.14	0.047	0.047	1	1691-99-2		08/23/2022 15:36
11-CI-PF3OUdS	ND	0.14	0.037	0.037	1	763051-92-9		08/23/2022 15:36
PFTTrDA	ND	0.14	0.046	0.046	1	72629-94-8		08/23/2022 15:36
PFDoS	ND	0.14	0.038	0.038	1	79780-39-5		08/23/2022 15:36
PFTDA	ND	0.14	0.050	0.050	1	376-06-7		08/23/2022 15:36

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-AFFExcavation-SB01(17-17.5)	Total Amount Extracted	5.28g
Lab Sample ID	10620121002	Percent Moisture	34.5776%
Lab File ID	B220823B_008	Dry Weight Extracted	3.46g
Matrix	Soil	Ical ID	220817B02
Collected	08/03/2022 12:20	CCal File	B220823B_001
Received	08/05/2022 18:45	Ending CCal File	B220823B_011
Extraction Date	08/10/2022 16:12	Blank File	B220817C_006

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	1.4	1.2	85	50-150		08/23/2022 15:36
13C4 PFOA	1.4	1.4	93	50-150		08/23/2022 15:36
13C2 PFDA	1.4	1.3	90	50-150		08/23/2022 15:36
13C4 PFOS	1.4	1.2	88	50-150		08/23/2022 15:36

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	1.4	1.1	74	25-150		08/23/2022 15:36
13C5 PFPeA	1.4	1.1	76	25-150		08/23/2022 15:36
13C3 PFBS	1.3	0.94	70	25-150		08/23/2022 15:36
13C2 4:2FTS	1.4	1.00	74	25-150		08/23/2022 15:36
13C5 PFHxA	1.4	1.1	75	25-150		08/23/2022 15:36
13C4 PFHpA	1.4	1.1	76	25-150		08/23/2022 15:36
13C3 PFHxS	1.4	1.0	73	25-150		08/23/2022 15:36
13C2 6:2FTS	1.4	0.94	68	25-150		08/23/2022 15:36
13C8 PFOA	1.4	1.1	78	25-150		08/23/2022 15:36
13C9 PFNA	1.4	1.0	70	25-150		08/23/2022 15:36
13C8 PFOS	1.4	1.00	72	25-150		08/23/2022 15:36
13C2 8:2FTS	1.4	0.90	65	25-150		08/23/2022 15:36
13C6 PFDA	1.4	1.3	88	25-150		08/23/2022 15:36
d3-MeFOSAA	1.4	1.1	79	25-150		08/23/2022 15:36
13C8 PFOSA	1.4	0.84	58	25-150		08/23/2022 15:36
d5-EtFOSAA	1.4	0.93	64	25-150		08/23/2022 15:36
13C7 PFUdA	1.4	1.1	77	25-150		08/23/2022 15:36
13C2 PFDoA	1.4	1.5	101	25-150		08/23/2022 15:36
13C2 PFTeDA	1.4	0.86	59	25-150		08/23/2022 15:36
13C3 HFPO-DA	1.4	1.2	80	25-150		08/23/2022 15:36
d7-N-MeFOSE	1.4	0.021	1	10-150	R	08/23/2022 15:36
d9-N-EtFOSE	1.4	0.029	2	10-150	R	08/23/2022 15:36
d3-N-MeFOSA	1.4	0.0066	0	10-150	R	08/23/2022 15:36
d5-N-EtFOSA	1.4	0.0054	0	10-150	R	08/23/2022 15:36

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-AFFExcavation-SB01(17-17.5)	Total Amount Extracted	5.28g
Lab Sample ID	10620121002	Percent Moisture	34.5776%
Lab File ID	B220823B_008	Dry Weight Extracted	3.46g
Matrix	Soil	Ical ID	220817B02
Collected	08/03/2022 12:20	CCal File	B220823B_001
Received	08/05/2022 18:45	Ending CCal File	B220823B_011
Extraction Date	08/10/2022 16:12	Blank File	B220817C_006

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.86	5.77	13		08/23/2022 15:36
13C4 PFOA	N/A	N/A	7.09	7.07	16		08/23/2022 15:36
13C2 PFDA	N/A	N/A	8.41	8.39	14		08/23/2022 15:36
13C4 PFOS	N/A	N/A	8.89	8.88	14		08/23/2022 15:36

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.29	4.23	19		08/23/2022 15:36
13C5 PFPeA	N/A	N/A	5.20	5.10	20		08/23/2022 15:36
13C3 PFBS	N/A	N/A	6.09	6.09	16		08/23/2022 15:36
13C2 4:2FTS	N/A	N/A	5.60	5.51	41		08/23/2022 15:36
13C5 PFHxA	N/A	N/A	5.86	5.78	17		08/23/2022 15:36
13C4 PFHpA	N/A	N/A	6.47	6.42	13		08/23/2022 15:36
13C3 PFHxS	N/A	N/A	7.49	7.47	13		08/23/2022 15:36
13C2 6:2FTS	N/A	N/A	6.76	6.73	99		08/23/2022 15:36
13C8 PFOA	N/A	N/A	7.09	7.06	17		08/23/2022 15:36
13C9 PFNA	N/A	N/A	7.74	7.71	18		08/23/2022 15:36
13C8 PFOS	N/A	N/A	8.89	8.86	17		08/23/2022 15:36
13C2 8:2FTS	N/A	N/A	8.03	8.00	27		08/23/2022 15:36
13C6 PFDA	N/A	N/A	8.42	8.38	13		08/23/2022 15:36
d3-MeFOSAA	N/A	N/A	8.28	8.25	14		08/23/2022 15:36
13C8 PFOSA	N/A	N/A	10.53	10.42	11		08/23/2022 15:36
d5-EtFOSAA	N/A	N/A	8.57	8.54	11		08/23/2022 15:36
13C7 PFUdA	N/A	N/A	9.09	9.07	15		08/23/2022 15:36
13C2 PFDoA	N/A	N/A	9.75	9.71	11		08/23/2022 15:36
13C2 PFTeDA	N/A	N/A	11.03	11.02	11		08/23/2022 15:36
13C3 HFPO-DA	N/A	N/A	6.11	6.04	18		08/23/2022 15:36
d7-N-MeFOSE	N/A	N/A	12.47	12.44	41	R	08/23/2022 15:36
d9-N-EtFOSE	N/A	N/A	12.94	12.92	15	R	08/23/2022 15:36
d3-N-MeFOSA	N/A	N/A	12.68	12.65	84	R	08/23/2022 15:36
d5-N-EtFOSA	N/A	N/A	13.09	13.07	11	R	08/23/2022 15:36

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-AFFExcavation-SB01(17-17.5)	Total Amount Extracted	5.28g
Lab Sample ID	10620121002	Percent Moisture	34.5776%
Lab File ID	B220823B_008	Dry Weight Extracted	3.46g
Matrix	Soil	Ical ID	220817B02
Collected	08/03/2022 12:20	CCal File	B220823B_001
Received	08/05/2022 18:45	Ending CCal File	B220823B_011
Extraction Date	08/10/2022 16:12	Blank File	B220817C_006

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	0.00	4.23	ND		08/23/2022 15:36
PFPeA	N/A	N/A	5.21	5.21	ND		08/23/2022 15:36
HFPO-DA	0.26	0.26	6.13	6.07	ND		08/23/2022 15:36
PFBS	0.00	0.43	0.00	6.08	ND		08/23/2022 15:36
PFHxA	0.00	0.09	0.00	5.85	ND		08/23/2022 15:36
4:2 FTS	0.00	0.81	0.00	5.54	ND		08/23/2022 15:36
PFPeS	0.00	0.42	0.00	6.79	ND		08/23/2022 15:36
PFHpA	0.00	0.32	0.00	6.44	ND		08/23/2022 15:36
DONA	0.00	0.56	0.00	6.67	ND		08/23/2022 15:36
PFHxS	0.00	0.37	0.00	7.49	ND		08/23/2022 15:36
PFOA	0.43	0.39	7.09	7.08	ND		08/23/2022 15:36
6:2 FTS	1.10	0.93	6.77	6.74	ND		08/23/2022 15:36
PFHpS	0.00	0.41	0.00	8.20	ND		08/23/2022 15:36
PFNA	0.00	0.12	0.00	7.73	ND		08/23/2022 15:36
PFOSAm	N/A	N/A	10.54	10.44	ND		08/23/2022 15:36
PFOS	0.38	0.35	8.90	8.90	ND		08/23/2022 15:36
MeFOSA	0.00	0.47	0.00	12.69	ND		08/23/2022 15:36
PFDA	0.00	0.18	0.00	8.40	ND		08/23/2022 15:36
EtFOSAm	0.00	0.50	0.00	13.10	ND		08/23/2022 15:36
8:2 FTS	0.00	0.96	0.00	8.02	ND		08/23/2022 15:36
9-Cl-PF3ON	0.00	0.06	0.00	9.39	ND		08/23/2022 15:36
PFNS	0.00	0.47	0.00	9.58	ND		08/23/2022 15:36
PFUnDA	0.00	0.14	0.00	9.05	ND		08/23/2022 15:36
NMeFOSAA	0.00	0.82	0.00	8.26	ND		08/23/2022 15:36
NEtFOSAA	0.00	0.68	0.00	8.55	ND		08/23/2022 15:36
PFDS	0.00	0.32	0.00	10.19	ND		08/23/2022 15:36
PFDOA	0.00	0.15	0.00	9.72	ND		08/23/2022 15:36
MeFOSE	N/A	N/A	0.00	12.45	ND		08/23/2022 15:36
EtFOSE	0.00	0.00	0.00	12.92	ND		08/23/2022 15:36
11-Cl-PF3OUdS	0.00	0.03	0.00	10.66	ND		08/23/2022 15:36
PFTTrDA	0.00	0.16	0.00	10.37	ND		08/23/2022 15:36
PFDoS	0.00	0.46	0.00	11.43	ND		08/23/2022 15:36
PFTDA	0.00	0.26	0.00	11.02	ND		08/23/2022 15:36

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-ERB-03
 Lab Sample ID 10620121003
 Lab File ID B220817C_067
 Matrix Non_Potable_Water
 Collected 08/03/2022 11:55
 Received 08/05/2022 18:45
 Extraction Date 08/15/2022 10:35

Total Amount Extracted 259mL
 Ical ID 220817B02
 CCal File B220817C_060
 Ending CCal File B220817C_071
 Blank File B220817C_004

Compound	Concentration (ng/L)	QL (ng/L)	RL (ng/L)	MDL (ng/L)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	1.9	0.43	0.43	1	375-22-4		08/19/2022 13:07
PFPeA	ND	1.9	0.42	0.42	1	2706-90-3		08/19/2022 13:07
HFPO-DA	ND	1.9	0.51	0.51	1	13252-13-6		08/19/2022 13:07
PFBS	ND	1.7	0.46	0.46	1	375-73-5		08/19/2022 13:07
PFHxA	ND	1.9	0.42	0.42	1	307-24-4		08/19/2022 13:07
4:2 FTS	ND	1.8	0.54	0.54	1	757124-72-4		08/19/2022 13:07
PFPeS	ND	1.8	0.46	0.46	1	2706-91-4		08/19/2022 13:07
PFHpA	ND	1.9	0.53	0.53	1	375-85-9		08/19/2022 13:07
DONA	ND	1.8	0.50	0.50	1	919005-14-4		08/19/2022 13:07
PFHxS	ND	1.8	0.49	0.49	1	355-46-4		08/19/2022 13:07
PFOA	ND	1.9	0.56	0.56	1	335-67-1		08/19/2022 13:07
6:2 FTS	ND	1.8	0.62	0.62	1	27619-97-2		08/19/2022 13:07
PFHpS	ND	1.8	0.40	0.40	1	375-92-8		08/19/2022 13:07
PFNA	ND	1.9	0.71	0.71	1	375-95-1		08/19/2022 13:07
PFOSAm	ND	1.9	0.79	0.79	1	754-91-6		08/19/2022 13:07
PFOS	ND	1.8	0.53	0.53	1	1763-23-1		08/19/2022 13:07
MeFOSA	ND	1.9	0.49	0.49	1	31506-32-8		08/19/2022 13:07
PFDA	ND	1.9	0.54	0.54	1	335-76-2		08/19/2022 13:07
EtFOSAm	ND	1.9	0.59	0.59	1	4151-50-2		08/19/2022 13:07
8:2 FTS	ND	1.9	0.63	0.63	1	39108-34-4		08/19/2022 13:07
9-CI-PF3ON	ND	1.8	0.29	0.29	1	756426-58-1		08/19/2022 13:07
PFNS	ND	1.9	0.43	0.43	1	68259-12-1		08/19/2022 13:07
PFUnDA	ND	1.9	0.52	0.52	1	2058-94-8		08/19/2022 13:07
NMeFOSAA	ND	1.9	0.42	0.42	1	2355-31-9		08/19/2022 13:07
NEtFOSAA	ND	1.9	0.54	0.54	1	2991-50-6		08/19/2022 13:07
PFDS	ND	1.9	0.43	0.43	1	335-77-3		08/19/2022 13:07
PFDOA	ND	1.9	0.47	0.47	1	307-55-1		08/19/2022 13:07
MeFOSE	ND	1.9	0.32	0.32	1	24448-09-7		08/19/2022 13:07
EtFOSE	ND	1.9	0.48	0.48	1	1691-99-2		08/19/2022 13:07
11-CI-PF3OUdS	ND	1.8	0.42	0.42	1	763051-92-9		08/19/2022 13:07
PFTTrDA	ND	1.9	0.60	0.60	1	72629-94-8		08/19/2022 13:07
PFDoS	ND	1.9	0.44	0.44	1	79780-39-5		08/19/2022 13:07
PFTDA	ND	1.9	0.46	0.46	1	376-06-7		08/19/2022 13:07

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-ERB-03	Total Amount Extracted	259mL
Lab Sample ID	10620121003	Ical ID	220817B02
Lab File ID	B220817C_067	CCal File	B220817C_060
Matrix	Non_Potable_Water	Ending CCal File	B220817C_071
Collected	08/03/2022 11:55	Blank File	B220817C_004
Received	08/05/2022 18:45		
Extraction Date	08/15/2022 10:35		

Injection Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	19	14	70	50-150		08/19/2022 13:07
13C4 PFOA	19	14	73	50-150		08/19/2022 13:07
13C2 PFDA	19	14	75	50-150		08/19/2022 13:07
13C4 PFOS	18	15	81	50-150		08/19/2022 13:07

Extracted Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	19	16	83	25-150		08/19/2022 13:07
13C5 PFPeA	19	16	85	25-150		08/19/2022 13:07
13C3 PFBS	18	15	84	25-150		08/19/2022 13:07
13C2 4:2FTS	18	16	89	25-150		08/19/2022 13:07
13C5 PFHxA	19	16	84	25-150		08/19/2022 13:07
13C4 PFHpA	19	15	76	25-150		08/19/2022 13:07
13C3 PFHxS	18	15	85	25-150		08/19/2022 13:07
13C2 6:2FTS	18	17	92	25-150		08/19/2022 13:07
13C8 PFOA	19	17	88	25-150		08/19/2022 13:07
13C9 PFNA	19	17	87	25-150		08/19/2022 13:07
13C8 PFOS	18	17	91	25-150		08/19/2022 13:07
13C2 8:2FTS	18	16	88	25-150		08/19/2022 13:07
13C6 PFDA	19	16	82	25-150		08/19/2022 13:07
d3-MeFOSAA	19	13	67	25-150		08/19/2022 13:07
13C8 PFOSA	19	12	61	25-150		08/19/2022 13:07
d5-EtFOSAA	19	9.4	49	25-150		08/19/2022 13:07
13C7 PFUdA	19	16	84	25-150		08/19/2022 13:07
13C2 PFDoA	19	15	76	25-150		08/19/2022 13:07
13C2 PFTeDA	19	9.7	50	25-150		08/19/2022 13:07
13C3 HFPO-DA	19	17	88	25-150		08/19/2022 13:07
d7-N-MeFOSE	19	7.5	39	10-150		08/19/2022 13:07
d9-N-EtFOSE	19	7.2	38	10-150		08/19/2022 13:07
d3-N-MeFOSA	19	5.5	29	10-150		08/19/2022 13:07
d5-N-EtFOSA	19	4.3	22	10-150		08/19/2022 13:07

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-ERB-03
 Lab Sample ID 10620121003
 Lab File ID B220817C_067
 Matrix Non_Potable_Water
 Collected 08/03/2022 11:55
 Received 08/05/2022 18:45
 Extraction Date 08/15/2022 10:35

Total Amount Extracted 259mL
 Ical ID 220817B02
 CCal File B220817C_060
 Ending CCal File B220817C_071
 Blank File B220817C_004

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.77	17		08/19/2022 13:07
13C4 PFOA	N/A	N/A	7.05	7.07	19		08/19/2022 13:07
13C2 PFDA	N/A	N/A	8.39	8.39	26		08/19/2022 13:07
13C4 PFOS	N/A	N/A	8.87	8.88	12		08/19/2022 13:07

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.26	4.23	21		08/19/2022 13:07
13C5 PFPeA	N/A	N/A	5.13	5.10	21		08/19/2022 13:07
13C3 PFBS	N/A	N/A	6.03	6.02	22		08/19/2022 13:07
13C2 4:2FTS	N/A	N/A	5.54	5.51	57		08/19/2022 13:07
13C5 PFHxA	N/A	N/A	5.80	5.78	16		08/19/2022 13:07
13C4 PFHpA	N/A	N/A	6.42	6.42	18		08/19/2022 13:07
13C3 PFHxS	N/A	N/A	7.46	7.47	20		08/19/2022 13:07
13C2 6:2FTS	N/A	N/A	6.72	6.73	16		08/19/2022 13:07
13C8 PFOA	N/A	N/A	7.05	7.06	23		08/19/2022 13:07
13C9 PFNA	N/A	N/A	7.71	7.71	21		08/19/2022 13:07
13C8 PFOS	N/A	N/A	8.88	8.86	17		08/19/2022 13:07
13C2 8:2FTS	N/A	N/A	8.01	8.00	21		08/19/2022 13:07
13C6 PFDA	N/A	N/A	8.39	8.38	11		08/19/2022 13:07
d3-MeFOSAA	N/A	N/A	8.25	8.25	13		08/19/2022 13:07
13C8 PFOSA	N/A	N/A	10.53	10.42	13		08/19/2022 13:07
d5-EtFOSAA	N/A	N/A	8.54	8.54	27		08/19/2022 13:07
13C7 PFUdA	N/A	N/A	9.06	9.07	18		08/19/2022 13:07
13C2 PFDoA	N/A	N/A	9.73	9.71	16		08/19/2022 13:07
13C2 PFTeDA	N/A	N/A	11.03	11.02	12		08/19/2022 13:07
13C3 HFPO-DA	N/A	N/A	6.05	6.04	20		08/19/2022 13:07
d7-N-MeFOSE	N/A	N/A	12.46	12.44	59		08/19/2022 13:07
d9-N-EtFOSE	N/A	N/A	12.94	12.88	61		08/19/2022 13:07
d3-N-MeFOSA	N/A	N/A	12.67	12.65	78		08/19/2022 13:07
d5-N-EtFOSA	N/A	N/A	13.10	13.07	60		08/19/2022 13:07

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-ERB-03	Total Amount Extracted	259mL
Lab Sample ID	10620121003	Ical ID	220817B02
Lab File ID	B220817C_067	CCal File	B220817C_060
Matrix	Non_Potable_Water	Ending CCal File	B220817C_071
Collected	08/03/2022 11:55	Blank File	B220817C_004
Received	08/05/2022 18:45		
Extraction Date	08/15/2022 10:35		

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.26	4.23	ND		08/19/2022 13:07
PFPeA	N/A	N/A	5.14	5.15	ND		08/19/2022 13:07
HFPO-DA	0.47	0.28	6.07	6.07	ND		08/19/2022 13:07
PFBS	0.30	0.43	6.04	6.02	ND		08/19/2022 13:07
PFHxA	0.05	0.08	5.81	5.81	ND		08/19/2022 13:07
4:2 FTS	0.00	0.92	0.00	5.54	ND		08/19/2022 13:07
PFPeS	0.00	0.40	0.00	6.79	ND		08/19/2022 13:07
PFHpA	0.32	0.33	6.42	6.44	ND		08/19/2022 13:07
DONA	0.00	0.56	0.00	6.67	ND		08/19/2022 13:07
PFHxS	0.31	0.39	7.48	7.49	ND		08/19/2022 13:07
PFOA	0.45	0.39	7.06	7.08	ND		08/19/2022 13:07
6:2 FTS	0.88	0.95	6.72	6.74	ND		08/19/2022 13:07
PFHpS	0.00	0.43	0.00	8.20	ND		08/19/2022 13:07
PFNA	0.09	0.14	7.71	7.73	ND		08/19/2022 13:07
PFOSAm	N/A	N/A	10.53	10.44	ND		08/19/2022 13:07
PFOS	0.29	0.38	8.89	8.90	ND		08/19/2022 13:07
MeFOSA	0.00	0.59	0.00	12.69	ND		08/19/2022 13:07
PFDA	0.00	0.20	0.00	8.40	ND		08/19/2022 13:07
EtFOSAm	0.00	0.57	0.00	13.10	ND		08/19/2022 13:07
8:2 FTS	0.00	0.93	0.00	8.02	ND		08/19/2022 13:07
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/19/2022 13:07
PFNS	0.00	0.47	0.00	9.58	ND		08/19/2022 13:07
PFUnDA	0.22	0.13	9.08	9.05	ND		08/19/2022 13:07
NMeFOSAA	0.00	0.94	0.00	8.26	ND		08/19/2022 13:07
NEtFOSAA	0.00	0.67	0.00	8.55	ND		08/19/2022 13:07
PFDS	0.00	0.35	0.00	10.19	ND		08/19/2022 13:07
PFDOA	0.00	0.19	0.00	9.72	ND		08/19/2022 13:07
MeFOSE	N/A	N/A	0.00	12.45	ND		08/19/2022 13:07
EtFOSE	0.00	0.00	0.00	12.92	ND		08/19/2022 13:07
11-CI-PF3OUdS	0.00	0.02	0.00	10.66	ND		08/19/2022 13:07
PFTTrDA	0.00	0.16	0.00	10.37	ND		08/19/2022 13:07
PFDoS	0.00	0.47	0.00	11.43	ND		08/19/2022 13:07
PFTDA	0.00	0.25	0.00	11.02	ND		08/19/2022 13:07

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-FB-02	Total Amount Extracted	262mL
Lab Sample ID	10620121004	Ical ID	220817B02
Lab File ID	B220817C_068	CCal File	B220817C_060
Matrix	Non_Potable_Water	Ending CCal File	B220817C_071
Collected	08/03/2022 12:30	Blank File	B220817C_004
Received	08/05/2022 18:45		
Extraction Date	08/15/2022 10:35		

Compound	Concentration (ng/L)	QL (ng/L)	RL (ng/L)	MDL (ng/L)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	1.9	0.42	0.42	1	375-22-4		08/19/2022 13:27
PFPeA	ND	1.9	0.42	0.42	1	2706-90-3		08/19/2022 13:27
HFPO-DA	ND	1.9	0.50	0.50	1	13252-13-6		08/19/2022 13:27
PFBS	ND	1.7	0.45	0.45	1	375-73-5		08/19/2022 13:27
PFHxA	ND	1.9	0.42	0.42	1	307-24-4		08/19/2022 13:27
4:2 FTS	ND	1.8	0.53	0.53	1	757124-72-4		08/19/2022 13:27
PFPeS	ND	1.8	0.45	0.45	1	2706-91-4		08/19/2022 13:27
PFHpA	ND	1.9	0.52	0.52	1	375-85-9		08/19/2022 13:27
DONA	ND	1.8	0.49	0.49	1	919005-14-4		08/19/2022 13:27
PFHxS	ND	1.7	0.48	0.48	1	355-46-4		08/19/2022 13:27
PFOA	ND	1.9	0.56	0.56	1	335-67-1		08/19/2022 13:27
6:2 FTS	ND	1.8	0.62	0.62	1	27619-97-2		08/19/2022 13:27
PFHpS	ND	1.8	0.39	0.39	1	375-92-8		08/19/2022 13:27
PFNA	ND	1.9	0.71	0.71	1	375-95-1		08/19/2022 13:27
PFOSAm	ND	1.9	0.78	0.78	1	754-91-6		08/19/2022 13:27
PFOS	ND	1.8	0.52	0.52	1	1763-23-1		08/19/2022 13:27
MeFOSA	ND	1.9	0.49	0.49	1	31506-32-8		08/19/2022 13:27
PFDA	ND	1.9	0.54	0.54	1	335-76-2		08/19/2022 13:27
EtFOSAm	ND	1.9	0.58	0.58	1	4151-50-2		08/19/2022 13:27
8:2 FTS	ND	1.8	0.62	0.62	1	39108-34-4		08/19/2022 13:27
9-CI-PF3ON	ND	1.8	0.29	0.29	1	756426-58-1		08/19/2022 13:27
PFNS	ND	1.8	0.43	0.43	1	68259-12-1		08/19/2022 13:27
PFUnDA	ND	1.9	0.51	0.51	1	2058-94-8		08/19/2022 13:27
NMeFOSAA	ND	1.9	0.41	0.41	1	2355-31-9		08/19/2022 13:27
NEtFOSAA	ND	1.9	0.53	0.53	1	2991-50-6		08/19/2022 13:27
PFDS	ND	1.8	0.43	0.43	1	335-77-3		08/19/2022 13:27
PFDOA	ND	1.9	0.46	0.46	1	307-55-1		08/19/2022 13:27
MeFOSE	ND	1.9	0.31	0.31	1	24448-09-7		08/19/2022 13:27
EtFOSE	ND	1.9	0.47	0.47	1	1691-99-2		08/19/2022 13:27
11-CI-PF3OUdS	ND	1.8	0.42	0.42	1	763051-92-9		08/19/2022 13:27
PFTTrDA	ND	1.9	0.59	0.59	1	72629-94-8		08/19/2022 13:27
PFDoS	ND	1.8	0.44	0.44	1	79780-39-5		08/19/2022 13:27
PFTDA	ND	1.9	0.45	0.45	1	376-06-7		08/19/2022 13:27

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-FB-02	Total Amount Extracted	262mL
Lab Sample ID	10620121004	Ical ID	220817B02
Lab File ID	B220817C_068	CCal File	B220817C_060
Matrix	Non_Potable_Water	Ending CCal File	B220817C_071
Collected	08/03/2022 12:30	Blank File	B220817C_004
Received	08/05/2022 18:45		
Extraction Date	08/15/2022 10:35		

Injection Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	19	14	72	50-150		08/19/2022 13:27
13C4 PFOA	19	14	72	50-150		08/19/2022 13:27
13C2 PFDA	19	14	71	50-150		08/19/2022 13:27
13C4 PFOS	18	14	77	50-150		08/19/2022 13:27

Extracted Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	19	16	84	25-150		08/19/2022 13:27
13C5 PFPeA	19	17	87	25-150		08/19/2022 13:27
13C3 PFBS	18	16	90	25-150		08/19/2022 13:27
13C2 4:2FTS	18	14	80	25-150		08/19/2022 13:27
13C5 PFHxA	19	17	87	25-150		08/19/2022 13:27
13C4 PFHpA	19	16	84	25-150		08/19/2022 13:27
13C3 PFHxS	18	15	82	25-150		08/19/2022 13:27
13C2 6:2FTS	18	17	92	25-150		08/19/2022 13:27
13C8 PFOA	19	16	83	25-150		08/19/2022 13:27
13C9 PFNA	19	16	83	25-150		08/19/2022 13:27
13C8 PFOS	18	15	82	25-150		08/19/2022 13:27
13C2 8:2FTS	18	14	79	25-150		08/19/2022 13:27
13C6 PFDA	19	13	70	25-150		08/19/2022 13:27
d3-MeFOSAA	19	9.4	49	25-150		08/19/2022 13:27
13C8 PFOSA	19	12	64	25-150		08/19/2022 13:27
d5-EtFOSAA	19	9.3	49	25-150		08/19/2022 13:27
13C7 PFUdA	19	13	67	25-150		08/19/2022 13:27
13C2 PFDoA	19	12	62	25-150		08/19/2022 13:27
13C2 PFTeDA	19	13	66	25-150		08/19/2022 13:27
13C3 HFPO-DA	19	17	88	25-150		08/19/2022 13:27
d7-N-MeFOSE	19	8.9	46	10-150		08/19/2022 13:27
d9-N-EtFOSE	19	7.7	40	10-150		08/19/2022 13:27
d3-N-MeFOSA	19	5.4	28	10-150		08/19/2022 13:27
d5-N-EtFOSA	19	4.7	25	10-150		08/19/2022 13:27

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-FB-02	Total Amount Extracted	262mL
Lab Sample ID	10620121004	Ical ID	220817B02
Lab File ID	B220817C_068	CCal File	B220817C_060
Matrix	Non_Potable_Water	Ending CCal File	B220817C_071
Collected	08/03/2022 12:30	Blank File	B220817C_004
Received	08/05/2022 18:45		
Extraction Date	08/15/2022 10:35		

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.77	15		08/19/2022 13:27
13C4 PFOA	N/A	N/A	7.04	7.07	20		08/19/2022 13:27
13C2 PFDA	N/A	N/A	8.39	8.39	17		08/19/2022 13:27
13C4 PFOS	N/A	N/A	8.87	8.88	23		08/19/2022 13:27

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.26	4.23	19		08/19/2022 13:27
13C5 PFPeA	N/A	N/A	5.13	5.10	20		08/19/2022 13:27
13C3 PFBS	N/A	N/A	6.03	6.02	23		08/19/2022 13:27
13C2 4:2FTS	N/A	N/A	5.54	5.51	69		08/19/2022 13:27
13C5 PFHxA	N/A	N/A	5.80	5.78	17		08/19/2022 13:27
13C4 PFHpA	N/A	N/A	6.41	6.42	16		08/19/2022 13:27
13C3 PFHxS	N/A	N/A	7.46	7.47	20		08/19/2022 13:27
13C2 6:2FTS	N/A	N/A	6.71	6.73	26		08/19/2022 13:27
13C8 PFOA	N/A	N/A	7.04	7.06	21		08/19/2022 13:27
13C9 PFNA	N/A	N/A	7.70	7.71	23		08/19/2022 13:27
13C8 PFOS	N/A	N/A	8.88	8.86	31		08/19/2022 13:27
13C2 8:2FTS	N/A	N/A	8.00	8.00	44		08/19/2022 13:27
13C6 PFDA	N/A	N/A	8.39	8.38	20		08/19/2022 13:27
d3-MeFOSAA	N/A	N/A	8.25	8.25	18		08/19/2022 13:27
13C8 PFOSA	N/A	N/A	10.53	10.42	17		08/19/2022 13:27
d5-EtFOSAA	N/A	N/A	8.54	8.54	13		08/19/2022 13:27
13C7 PFUdA	N/A	N/A	9.07	9.07	22		08/19/2022 13:27
13C2 PFDoA	N/A	N/A	9.73	9.71	15		08/19/2022 13:27
13C2 PFTeDA	N/A	N/A	11.03	11.02	14		08/19/2022 13:27
13C3 HFPO-DA	N/A	N/A	6.05	6.04	18		08/19/2022 13:27
d7-N-MeFOSE	N/A	N/A	12.46	12.44	51		08/19/2022 13:27
d9-N-EtFOSE	N/A	N/A	12.94	12.88	63		08/19/2022 13:27
d3-N-MeFOSA	N/A	N/A	12.67	12.65	19		08/19/2022 13:27
d5-N-EtFOSA	N/A	N/A	13.10	13.07	58		08/19/2022 13:27

REPORT OF LABORATORY ANALYSIS

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-FB-02	Total Amount Extracted	262mL
Lab Sample ID	10620121004	Ical ID	220817B02
Lab File ID	B220817C_068	CCal File	B220817C_060
Matrix	Non_Potable_Water	Ending CCal File	B220817C_071
Collected	08/03/2022 12:30	Blank File	B220817C_004
Received	08/05/2022 18:45		
Extraction Date	08/15/2022 10:35		

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.26	4.23	ND		08/19/2022 13:27
PFPeA	N/A	N/A	5.14	5.15	ND		08/19/2022 13:27
HFPO-DA	0.21	0.28	6.07	6.07	ND		08/19/2022 13:27
PFBS	0.60	0.43	6.04	6.02	ND		08/19/2022 13:27
PFHxA	0.08	0.08	5.81	5.81	ND		08/19/2022 13:27
4:2 FTS	0.00	0.92	0.00	5.54	ND		08/19/2022 13:27
PFPeS	0.00	0.40	0.00	6.79	ND		08/19/2022 13:27
PFHpA	0.29	0.33	6.42	6.44	ND		08/19/2022 13:27
DONA	0.00	0.56	0.00	6.67	ND		08/19/2022 13:27
PFHxS	0.40	0.39	7.47	7.49	ND		08/19/2022 13:27
PFOA	0.37	0.39	7.05	7.08	ND		08/19/2022 13:27
6:2 FTS	0.89	0.95	6.72	6.74	ND		08/19/2022 13:27
PFHpS	0.00	0.43	0.00	8.20	ND		08/19/2022 13:27
PFNA	0.13	0.14	7.71	7.73	ND		08/19/2022 13:27
PFOSAm	N/A	N/A	10.55	10.44	ND		08/19/2022 13:27
PFOS	0.33	0.38	8.89	8.90	ND		08/19/2022 13:27
MeFOSA	0.00	0.59	0.00	12.69	ND		08/19/2022 13:27
PFDA	0.00	0.20	0.00	8.40	ND		08/19/2022 13:27
EtFOSAm	0.00	0.57	0.00	13.10	ND		08/19/2022 13:27
8:2 FTS	0.00	0.93	0.00	8.02	ND		08/19/2022 13:27
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/19/2022 13:27
PFNS	0.00	0.47	0.00	9.58	ND		08/19/2022 13:27
PFUnDA	0.16	0.13	9.07	9.05	ND		08/19/2022 13:27
NMeFOSAA	0.00	0.94	0.00	8.26	ND		08/19/2022 13:27
NEtFOSAA	0.00	0.67	0.00	8.55	ND		08/19/2022 13:27
PFDS	0.00	0.35	0.00	10.19	ND		08/19/2022 13:27
PFDOA	0.00	0.19	0.00	9.72	ND		08/19/2022 13:27
MeFOSE	N/A	N/A	0.00	12.45	ND		08/19/2022 13:27
EtFOSE	0.00	0.00	0.00	12.92	ND		08/19/2022 13:27
11-CI-PF3OUdS	0.00	0.02	0.00	10.66	ND		08/19/2022 13:27
PFTTrDA	0.00	0.16	0.00	10.37	ND		08/19/2022 13:27
PFDoS	0.00	0.47	0.00	11.43	ND		08/19/2022 13:27
PFTDA	0.00	0.25	0.00	11.02	ND		08/19/2022 13:27

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-DECON-02
 Lab Sample ID 10620121005
 Lab File ID B220817C_069
 Matrix Non_Potable_Water
 Collected 08/03/2022 12:35
 Received 08/05/2022 18:45
 Extraction Date 08/15/2022 10:35

Total Amount Extracted 251mL
 Ical ID 220817B02
 CCal File B220817C_060
 Ending CCal File B220817C_071
 Blank File B220817C_004

Compound	Concentration (ng/L)	QL (ng/L)	RL (ng/L)	MDL (ng/L)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	2.0	0.44	0.44	1	375-22-4		08/19/2022 13:47
PFPeA	ND	2.0	0.44	0.44	1	2706-90-3		08/19/2022 13:47
HFPO-DA	ND	2.0	0.53	0.53	1	13252-13-6		08/19/2022 13:47
PFBS	ND	1.8	0.47	0.47	1	375-73-5		08/19/2022 13:47
PFHxA	ND	2.0	0.44	0.44	1	307-24-4		08/19/2022 13:47
4:2 FTS	ND	1.9	0.56	0.56	1	757124-72-4		08/19/2022 13:47
PFPeS	ND	1.9	0.47	0.47	1	2706-91-4		08/19/2022 13:47
PFHpA	ND	2.0	0.55	0.55	1	375-85-9		08/19/2022 13:47
DONA	ND	1.9	0.51	0.51	1	919005-14-4		08/19/2022 13:47
PFHxS	ND	1.8	0.51	0.51	1	355-46-4		08/19/2022 13:47
PFOA	ND	2.0	0.58	0.58	1	335-67-1		08/19/2022 13:47
6:2 FTS	ND	1.9	0.64	0.64	1	27619-97-2		08/19/2022 13:47
PFHpS	ND	1.9	0.41	0.41	1	375-92-8		08/19/2022 13:47
PFNA	ND	2.0	0.74	0.74	1	375-95-1		08/19/2022 13:47
PFOSAm	ND	2.0	0.81	0.81	1	754-91-6		08/19/2022 13:47
PFOS	ND	1.8	0.55	0.55	1	1763-23-1		08/19/2022 13:47
MeFOSA	ND	2.0	0.51	0.51	1	31506-32-8		08/19/2022 13:47
PFDA	ND	2.0	0.56	0.56	1	335-76-2		08/19/2022 13:47
EtFOSAm	ND	2.0	0.60	0.60	1	4151-50-2		08/19/2022 13:47
8:2 FTS	ND	1.9	0.65	0.65	1	39108-34-4		08/19/2022 13:47
9-CI-PF3ON	ND	1.9	0.30	0.30	1	756426-58-1		08/19/2022 13:47
PFNS	ND	1.9	0.44	0.44	1	68259-12-1		08/19/2022 13:47
PFUnDA	ND	2.0	0.54	0.54	1	2058-94-8		08/19/2022 13:47
NMeFOSAA	ND	2.0	0.43	0.43	1	2355-31-9		08/19/2022 13:47
NEtFOSAA	ND	2.0	0.55	0.55	1	2991-50-6		08/19/2022 13:47
PFDS	ND	1.9	0.45	0.45	1	335-77-3		08/19/2022 13:47
PFDOA	ND	2.0	0.48	0.48	1	307-55-1		08/19/2022 13:47
MeFOSE	ND	2.0	0.33	0.33	1	24448-09-7		08/19/2022 13:47
EtFOSE	ND	2.0	0.49	0.49	1	1691-99-2		08/19/2022 13:47
11-CI-PF3OUdS	ND	1.9	0.43	0.43	1	763051-92-9		08/19/2022 13:47
PFTTrDA	ND	2.0	0.62	0.62	1	72629-94-8		08/19/2022 13:47
PFDoS	ND	1.9	0.46	0.46	1	79780-39-5		08/19/2022 13:47
PFTDA	ND	2.0	0.47	0.47	1	376-06-7		08/19/2022 13:47

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-DECON-02
 Lab Sample ID 10620121005
 Lab File ID B220817C_069
 Matrix Non_Potable_Water
 Collected 08/03/2022 12:35
 Received 08/05/2022 18:45
 Extraction Date 08/15/2022 10:35

Total Amount Extracted 251mL
 Ical ID 220817B02
 CCal File B220817C_060
 Ending CCal File B220817C_071
 Blank File B220817C_004

Injection Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	20	14	70	50-150		08/19/2022 13:47
13C4 PFOA	20	16	78	50-150		08/19/2022 13:47
13C2 PFDA	20	13	68	50-150		08/19/2022 13:47
13C4 PFOS	19	14	74	50-150		08/19/2022 13:47

Extracted Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	20	17	86	25-150		08/19/2022 13:47
13C5 PFPeA	20	17	85	25-150		08/19/2022 13:47
13C3 PFBS	18	16	86	25-150		08/19/2022 13:47
13C2 4:2FTS	19	17	90	25-150		08/19/2022 13:47
13C5 PFHxA	20	16	83	25-150		08/19/2022 13:47
13C4 PFHpA	20	16	81	25-150		08/19/2022 13:47
13C3 PFHxS	19	15	81	25-150		08/19/2022 13:47
13C2 6:2FTS	19	15	77	25-150		08/19/2022 13:47
13C8 PFOA	20	19	93	25-150		08/19/2022 13:47
13C9 PFNA	20	15	74	25-150		08/19/2022 13:47
13C8 PFOS	19	14	73	25-150		08/19/2022 13:47
13C2 8:2FTS	19	11	60	25-150		08/19/2022 13:47
13C6 PFDA	20	14	70	25-150		08/19/2022 13:47
d3-MeFOSAA	20	8.4	42	25-150		08/19/2022 13:47
13C8 PFOSA	20	6.6	33	25-150		08/19/2022 13:47
d5-EtFOSAA	20	8.3	42	25-150		08/19/2022 13:47
13C7 PFUdA	20	10	51	25-150		08/19/2022 13:47
13C2 PFDoA	20	12	58	25-150		08/19/2022 13:47
13C2 PFTeDA	20	11	54	25-150		08/19/2022 13:47
13C3 HFPO-DA	20	18	89	25-150		08/19/2022 13:47
d7-N-MeFOSE	20	1.4	7	10-150	R	08/19/2022 13:47
d9-N-EtFOSE	20	1.0	5	10-150	R	08/19/2022 13:47
d3-N-MeFOSA	20	0.044	0	10-150	R	08/19/2022 13:47
d5-N-EtFOSA	20	0.041	0	10-150	R	08/19/2022 13:47

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID PR-DECON-02
 Lab Sample ID 10620121005
 Lab File ID B220817C_069
 Matrix Non_Potable_Water
 Collected 08/03/2022 12:35
 Received 08/05/2022 18:45
 Extraction Date 08/15/2022 10:35

Total Amount Extracted 251mL
 Ical ID 220817B02
 CCal File B220817C_060
 Ending CCal File B220817C_071
 Blank File B220817C_004

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.77	19		08/19/2022 13:47
13C4 PFOA	N/A	N/A	7.04	7.07	19		08/19/2022 13:47
13C2 PFDA	N/A	N/A	8.39	8.39	15		08/19/2022 13:47
13C4 PFOS	N/A	N/A	8.87	8.88	19		08/19/2022 13:47

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.26	4.23	21		08/19/2022 13:47
13C5 PFPeA	N/A	N/A	5.13	5.10	20		08/19/2022 13:47
13C3 PFBS	N/A	N/A	6.03	6.02	22		08/19/2022 13:47
13C2 4:2FTS	N/A	N/A	5.53	5.51	63		08/19/2022 13:47
13C5 PFHxA	N/A	N/A	5.80	5.78	22		08/19/2022 13:47
13C4 PFHpA	N/A	N/A	6.41	6.42	15		08/19/2022 13:47
13C3 PFHxS	N/A	N/A	7.46	7.47	22		08/19/2022 13:47
13C2 6:2FTS	N/A	N/A	6.71	6.73	15		08/19/2022 13:47
13C8 PFOA	N/A	N/A	7.04	7.06	28		08/19/2022 13:47
13C9 PFNA	N/A	N/A	7.70	7.71	21		08/19/2022 13:47
13C8 PFOS	N/A	N/A	8.88	8.86	21		08/19/2022 13:47
13C2 8:2FTS	N/A	N/A	8.01	8.00	48		08/19/2022 13:47
13C6 PFDA	N/A	N/A	8.39	8.38	15		08/19/2022 13:47
d3-MeFOSAA	N/A	N/A	8.25	8.25	85		08/19/2022 13:47
13C8 PFOSA	N/A	N/A	10.53	10.42	12		08/19/2022 13:47
d5-EtFOSAA	N/A	N/A	8.54	8.54	12		08/19/2022 13:47
13C7 PFUdA	N/A	N/A	9.06	9.07	30		08/19/2022 13:47
13C2 PFDoA	N/A	N/A	9.73	9.71	15		08/19/2022 13:47
13C2 PFTeDA	N/A	N/A	11.03	11.02	10		08/19/2022 13:47
13C3 HFPO-DA	N/A	N/A	6.05	6.04	13		08/19/2022 13:47
d7-N-MeFOSE	N/A	N/A	12.46	12.44	45	R	08/19/2022 13:47
d9-N-EtFOSE	N/A	N/A	12.94	12.88	26	R	08/19/2022 13:47
d3-N-MeFOSA	N/A	N/A	12.68	12.65	40	R	08/19/2022 13:47
d5-N-EtFOSA	N/A	N/A	13.10	13.07	97	R	08/19/2022 13:47

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Sample Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	PR-DECON-02	Total Amount Extracted	251mL
Lab Sample ID	10620121005	Ical ID	220817B02
Lab File ID	B220817C_069	CCal File	B220817C_060
Matrix	Non_Potable_Water	Ending CCal File	B220817C_071
Collected	08/03/2022 12:35	Blank File	B220817C_004
Received	08/05/2022 18:45		
Extraction Date	08/15/2022 10:35		

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.26	4.23	ND		08/19/2022 13:47
PFPeA	N/A	N/A	5.14	5.15	ND		08/19/2022 13:47
HFPO-DA	0.00	0.28	0.00	6.07	ND		08/19/2022 13:47
PFBS	0.75	0.43	6.04	6.02	ND		08/19/2022 13:47
PFHxA	0.00	0.08	0.00	5.81	ND		08/19/2022 13:47
4:2 FTS	0.00	0.92	0.00	5.54	ND		08/19/2022 13:47
PFPeS	0.00	0.40	0.00	6.79	ND		08/19/2022 13:47
PFHpA	0.40	0.33	6.42	6.44	ND		08/19/2022 13:47
DONA	0.00	0.56	0.00	6.67	ND		08/19/2022 13:47
PFHxS	0.00	0.39	0.00	7.49	ND		08/19/2022 13:47
PFOA	0.33	0.39	7.05	7.08	ND		08/19/2022 13:47
6:2 FTS	0.72	0.95	6.72	6.74	ND		08/19/2022 13:47
PFHpS	0.00	0.43	0.00	8.20	ND		08/19/2022 13:47
PFNA	0.08	0.14	7.71	7.73	ND		08/19/2022 13:47
PFOSAm	N/A	N/A	0.00	10.44	ND		08/19/2022 13:47
PFOS	0.29	0.38	8.88	8.90	ND		08/19/2022 13:47
MeFOSA	0.00	0.59	0.00	12.69	ND		08/19/2022 13:47
PFDA	0.00	0.20	0.00	8.40	ND		08/19/2022 13:47
EtFOSAm	0.00	0.57	0.00	13.10	ND		08/19/2022 13:47
8:2 FTS	0.00	0.93	0.00	8.02	ND		08/19/2022 13:47
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/19/2022 13:47
PFNS	0.00	0.47	0.00	9.58	ND		08/19/2022 13:47
PFUnDA	0.00	0.13	0.00	9.05	ND		08/19/2022 13:47
NMeFOSAA	0.00	0.94	0.00	8.26	ND		08/19/2022 13:47
NEtFOSAA	0.00	0.67	0.00	8.55	ND		08/19/2022 13:47
PFDS	0.00	0.35	0.00	10.19	ND		08/19/2022 13:47
PFDOA	0.00	0.19	0.00	9.72	ND		08/19/2022 13:47
MeFOSE	N/A	N/A	0.00	12.45	ND		08/19/2022 13:47
EtFOSE	0.00	0.00	0.00	12.92	ND		08/19/2022 13:47
11-CI-PF3OUdS	0.00	0.02	0.00	10.66	ND		08/19/2022 13:47
PFTTrDA	0.00	0.16	0.00	10.37	ND		08/19/2022 13:47
PFDoS	0.00	0.47	0.00	11.43	ND		08/19/2022 13:47
PFTDA	0.00	0.25	0.00	11.02	ND		08/19/2022 13:47

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKXY
 Lab Sample ID BLANK-100572
 Lab File ID B220817C_004
 Matrix Water
 Collected 08/10/2022 10:19
 Received 08/10/2022 10:19
 Extraction Date 08/15/2022 10:35

Total Amount Extracted 244mL
 Ical ID 220817B02
 CCal File B220817C_002
 Ending CCal File B220817C_013
 Blank File

Compound	Concentration (ng/L)	QL (ng/L)	RL (ng/L)	MDL (ng/L)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	2.0	0.45	0.45	1	375-22-4		08/18/2022 16:07
PFPeA	ND	2.0	0.45	0.45	1	2706-90-3		08/18/2022 16:07
HFPO-DA	ND	2.0	0.54	0.54	1	13252-13-6		08/18/2022 16:07
PFBS	ND	1.8	0.48	0.48	1	375-73-5		08/18/2022 16:07
PFHxA	ND	2.0	0.45	0.45	1	307-24-4		08/18/2022 16:07
4:2 FTS	ND	1.9	0.57	0.57	1	757124-72-4		08/18/2022 16:07
PFPeS	ND	1.9	0.49	0.49	1	2706-91-4		08/18/2022 16:07
PFHpA	ND	2.0	0.56	0.56	1	375-85-9		08/18/2022 16:07
DONA	ND	1.9	0.53	0.53	1	919005-14-4		08/18/2022 16:07
PFHxS	ND	1.9	0.52	0.52	1	355-46-4		08/18/2022 16:07
PFOA	ND	2.0	0.60	0.60	1	335-67-1		08/18/2022 16:07
6:2 FTS	ND	1.9	0.66	0.66	1	27619-97-2		08/18/2022 16:07
PFHpS	ND	1.9	0.42	0.42	1	375-92-8		08/18/2022 16:07
PFNA	ND	2.0	0.76	0.76	1	375-95-1		08/18/2022 16:07
PFOSAm	ND	2.0	0.84	0.84	1	754-91-6		08/18/2022 16:07
PFOS	ND	1.9	0.56	0.56	1	1763-23-1		08/18/2022 16:07
MeFOSA	ND	2.0	0.52	0.52	1	31506-32-8		08/18/2022 16:07
PFDA	ND	2.0	0.58	0.58	1	335-76-2		08/18/2022 16:07
EtFOSAm	ND	2.0	0.62	0.62	1	4151-50-2		08/18/2022 16:07
8:2 FTS	ND	2.0	0.67	0.67	1	39108-34-4		08/18/2022 16:07
9-CI-PF3ON	ND	1.9	0.31	0.31	1	756426-58-1		08/18/2022 16:07
PFNS	ND	2.0	0.46	0.46	1	68259-12-1		08/18/2022 16:07
PFUnDA	ND	2.0	0.55	0.55	1	2058-94-8		08/18/2022 16:07
NMeFOSAA	ND	2.0	0.44	0.44	1	2355-31-9		08/18/2022 16:07
NEtFOSAA	ND	2.0	0.57	0.57	1	2991-50-6		08/18/2022 16:07
PFDS	ND	2.0	0.46	0.46	1	335-77-3		08/18/2022 16:07
PFDOA	ND	2.0	0.49	0.49	1	307-55-1		08/18/2022 16:07
MeFOSE	ND	2.0	0.34	0.34	1	24448-09-7		08/18/2022 16:07
EtFOSE	ND	2.0	0.51	0.51	1	1691-99-2		08/18/2022 16:07
11-CI-PF3OUdS	ND	1.9	0.45	0.45	1	763051-92-9		08/18/2022 16:07
PFTTrDA	ND	2.0	0.64	0.64	1	72629-94-8		08/18/2022 16:07
PFDoS	ND	2.0	0.47	0.47	1	79780-39-5		08/18/2022 16:07
PFTDA	ND	2.0	0.49	0.49	1	376-06-7		08/18/2022 16:07

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKXY
 Lab Sample ID BLANK-100572
 Lab File ID B220817C_004
 Matrix Water
 Collected 08/10/2022 10:19
 Received 08/10/2022 10:19
 Extraction Date 08/15/2022 10:35

Total Amount Extracted 244mL
 Ical ID 220817B02
 CCal File B220817C_002
 Ending CCal File B220817C_013
 Blank File

Injection Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	20	15	76	50-150		08/18/2022 16:07
13C4 PFOA	20	16	79	50-150		08/18/2022 16:07
13C2 PFDA	20	16	80	50-150		08/18/2022 16:07
13C4 PFOS	20	16	81	50-150		08/18/2022 16:07

Extracted Internal Standards

Compound	Known Conc. (ng/L)	Conc.Found (ng/L)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	20	22	106	50-150		08/18/2022 16:07
13C5 PFPeA	20	19	92	50-150		08/18/2022 16:07
13C3 PFBS	19	18	93	50-150		08/18/2022 16:07
13C2 4:2FTS	19	16	85	50-150		08/18/2022 16:07
13C5 PFHxA	20	18	88	50-150		08/18/2022 16:07
13C4 PFHpA	20	21	104	50-150		08/18/2022 16:07
13C3 PFHxS	19	17	88	50-150		08/18/2022 16:07
13C2 6:2FTS	19	21	106	50-150		08/18/2022 16:07
13C8 PFOA	20	19	93	50-150		08/18/2022 16:07
13C9 PFNA	20	17	81	50-150		08/18/2022 16:07
13C8 PFOS	20	14	69	50-150		08/18/2022 16:07
13C2 8:2FTS	20	12	61	50-150		08/18/2022 16:07
13C6 PFDA	20	13	66	50-150		08/18/2022 16:07
d3-MeFOSAA	20	9.8	48	50-150	R	08/18/2022 16:07
13C8 PFOSA	20	12	59	50-150		08/18/2022 16:07
d5-EtFOSAA	20	10	50	50-150		08/18/2022 16:07
13C7 PFUdA	20	11	56	50-150		08/18/2022 16:07
13C2 PFDoA	20	12	57	50-150		08/18/2022 16:07
13C2 PFTeDA	20	13	61	50-150		08/18/2022 16:07
13C3 HFPO-DA	20	19	92	50-150		08/18/2022 16:07
d7-N-MeFOSE	20	10.0	49	20-150		08/18/2022 16:07
d9-N-EtFOSE	20	8.3	41	20-150		08/18/2022 16:07
d3-N-MeFOSA	20	6.0	29	20-150		08/18/2022 16:07
d5-N-EtFOSA	20	5.2	25	20-150		08/18/2022 16:07

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKXY
 Lab Sample ID BLANK-100572
 Lab File ID B220817C_004
 Matrix Water
 Collected 08/10/2022 10:19
 Received 08/10/2022 10:19
 Extraction Date 08/15/2022 10:35

Total Amount Extracted 244mL
 Ical ID 220817B02
 CCal File B220817C_002
 Ending CCal File B220817C_013
 Blank File

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.79	5.77	14		08/18/2022 16:07
13C4 PFOA	N/A	N/A	7.05	7.07	23		08/18/2022 16:07
13C2 PFDA	N/A	N/A	8.40	8.39	15		08/18/2022 16:07
13C4 PFOS	N/A	N/A	8.88	8.88	19		08/18/2022 16:07

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.24	4.23	24		08/18/2022 16:07
13C5 PFPeA	N/A	N/A	5.12	5.10	23		08/18/2022 16:07
13C3 PFBS	N/A	N/A	6.03	6.02	21		08/18/2022 16:07
13C2 4:2FTS	N/A	N/A	5.53	5.51	91		08/18/2022 16:07
13C5 PFHxA	N/A	N/A	5.79	5.78	22		08/18/2022 16:07
13C4 PFHpA	N/A	N/A	6.41	6.42	21		08/18/2022 16:07
13C3 PFHxS	N/A	N/A	7.47	7.47	20		08/18/2022 16:07
13C2 6:2FTS	N/A	N/A	6.72	6.73	55		08/18/2022 16:07
13C8 PFOA	N/A	N/A	7.05	7.06	30		08/18/2022 16:07
13C9 PFNA	N/A	N/A	7.71	7.71	19		08/18/2022 16:07
13C8 PFOS	N/A	N/A	8.88	8.86	21		08/18/2022 16:07
13C2 8:2FTS	N/A	N/A	8.02	8.00	26		08/18/2022 16:07
13C6 PFDA	N/A	N/A	8.40	8.38	15		08/18/2022 16:07
d3-MeFOSAA	N/A	N/A	8.26	8.25	29	R	08/18/2022 16:07
13C8 PFOSA	N/A	N/A	10.49	10.42	10		08/18/2022 16:07
d5-EtFOSAA	N/A	N/A	8.55	8.54	17		08/18/2022 16:07
13C7 PFUdA	N/A	N/A	9.07	9.07	27		08/18/2022 16:07
13C2 PFDaA	N/A	N/A	9.74	9.71	11		08/18/2022 16:07
13C2 PFTeDA	N/A	N/A	11.03	11.02	14		08/18/2022 16:07
13C3 HFPO-DA	N/A	N/A	6.05	6.04	21		08/18/2022 16:07
d7-N-MeFOSE	N/A	N/A	12.45	12.44	47		08/18/2022 16:07
d9-N-EtFOSE	N/A	N/A	12.93	12.88	57		08/18/2022 16:07
d3-N-MeFOSA	N/A	N/A	12.66	12.65	69		08/18/2022 16:07
d5-N-EtFOSA	N/A	N/A	13.09	13.07	64		08/18/2022 16:07

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID	BLKXY	Total Amount Extracted	244mL
Lab Sample ID	BLANK-100572	Ical ID	220817B02
Lab File ID	B220817C_004	CCal File	B220817C_002
Matrix	Water	Ending CCal File	B220817C_013
Collected	08/10/2022 10:19	Blank File	
Received	08/10/2022 10:19		
Extraction Date	08/15/2022 10:35		

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	4.24	4.23	ND		08/18/2022 16:07
PFPeA	N/A	N/A	5.13	5.15	ND		08/18/2022 16:07
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/18/2022 16:07
PFBS	0.45	0.41	6.04	6.02	ND		08/18/2022 16:07
PFHxA	0.11	0.09	5.80	5.81	ND		08/18/2022 16:07
4:2 FTS	0.00	0.84	0.00	5.54	ND		08/18/2022 16:07
PFPeS	0.00	0.41	0.00	6.79	ND		08/18/2022 16:07
PFHpA	0.36	0.28	6.42	6.44	ND		08/18/2022 16:07
DONA	0.00	0.56	0.00	6.67	ND		08/18/2022 16:07
PFHxS	0.24	0.37	7.48	7.49	ND		08/18/2022 16:07
PFOA	0.35	0.39	7.05	7.08	ND		08/18/2022 16:07
6:2 FTS	0.85	0.76	6.73	6.74	ND		08/18/2022 16:07
PFHpS	0.00	0.35	0.00	8.20	ND		08/18/2022 16:07
PFNA	0.20	0.12	7.72	7.73	ND		08/18/2022 16:07
PFOSAm	N/A	N/A	10.50	10.44	ND		08/18/2022 16:07
PFOS	0.43	0.35	8.89	8.90	ND		08/18/2022 16:07
MeFOSA	0.81	0.59	12.69	12.69	ND		08/18/2022 16:07
PFDA	0.00	0.17	0.00	8.40	ND		08/18/2022 16:07
EtFOSAm	0.00	0.51	0.00	13.10	ND		08/18/2022 16:07
8:2 FTS	0.00	0.84	0.00	8.02	ND		08/18/2022 16:07
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/18/2022 16:07
PFNS	0.00	0.52	0.00	9.58	ND		08/18/2022 16:07
PFUnDA	0.00	0.11	0.00	9.05	ND		08/18/2022 16:07
NMeFOSAA	0.00	0.94	0.00	8.26	ND		08/18/2022 16:07
NEtFOSAA	0.00	0.56	0.00	8.55	ND		08/18/2022 16:07
PFDS	0.00	0.35	0.00	10.19	ND		08/18/2022 16:07
PFDOA	0.00	0.17	0.00	9.72	ND		08/18/2022 16:07
MeFOSE	N/A	N/A	0.00	12.45	ND		08/18/2022 16:07
EtFOSE	0.00	0.00	0.00	12.92	ND		08/18/2022 16:07
11-CI-PF3OUdS	0.00	0.02	0.00	10.66	ND		08/18/2022 16:07
PFTTrDA	0.00	0.14	0.00	10.37	ND		08/18/2022 16:07
PFDoS	0.00	0.45	0.00	11.43	ND		08/18/2022 16:07
PFTDA	0.00	0.23	0.00	11.02	ND		08/18/2022 16:07

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKXC
 Lab Sample ID BLANK-100506
 Lab File ID B220817C_006
 Matrix Soil
 Collected 08/05/2022 12:58
 Received 08/05/2022 12:58
 Extraction Date 08/10/2022 16:12

Total Amount Extracted 5.70g
 Ical ID 220817B02
 CCal File B220817C_002
 Ending CCal File B220817C_013
 Blank File

Compound	Concentration (ug/Kg)	QL (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)	Dil.	CAS No.	Qual.	Analyzed
PFBA	ND	0.088	0.025	0.025	1	375-22-4		08/18/2022 16:47
PFPeA	ND	0.088	0.025	0.025	1	2706-90-3		08/18/2022 16:47
HFPO-DA	ND	0.088	0.024	0.024	1	13252-13-6		08/18/2022 16:47
PFBS	ND	0.078	0.023	0.023	1	375-73-5		08/18/2022 16:47
PFHxA	ND	0.088	0.024	0.024	1	307-24-4		08/18/2022 16:47
4:2 FTS	ND	0.082	0.020	0.020	1	757124-72-4		08/18/2022 16:47
PFPeS	ND	0.082	0.021	0.021	1	2706-91-4		08/18/2022 16:47
PFHpA	ND	0.088	0.030	0.030	1	375-85-9		08/18/2022 16:47
DONA	ND	0.083	0.032	0.032	1	919005-14-4		08/18/2022 16:47
PFHxS	ND	0.080	0.019	0.019	1	355-46-4		08/18/2022 16:47
PFOA	ND	0.088	0.027	0.027	1	335-67-1		08/18/2022 16:47
6:2 FTS	ND	0.083	0.036	0.036	1	27619-97-2		08/18/2022 16:47
PFHpS	ND	0.083	0.024	0.024	1	375-92-8		08/18/2022 16:47
PFNA	ND	0.088	0.027	0.027	1	375-95-1		08/18/2022 16:47
PFOSAm	ND	0.088	0.026	0.026	1	754-91-6		08/18/2022 16:47
PFOS	ND	0.081	0.026	0.026	1	1763-23-1		08/18/2022 16:47
MeFOSA	ND	0.088	0.024	0.024	1	31506-32-8		08/18/2022 16:47
PFDA	ND	0.088	0.020	0.020	1	335-76-2		08/18/2022 16:47
EtFOSAm	ND	0.088	0.022	0.022	1	4151-50-2		08/18/2022 16:47
8:2 FTS	ND	0.084	0.039	0.039	1	39108-34-4		08/18/2022 16:47
9-CI-PF3ON	ND	0.082	0.022	0.022	1	756426-58-1		08/18/2022 16:47
PFNS	ND	0.084	0.030	0.030	1	68259-12-1		08/18/2022 16:47
PFUnDA	ND	0.088	0.026	0.026	1	2058-94-8		08/18/2022 16:47
NMeFOSAA	ND	0.088	0.025	0.025	1	2355-31-9		08/18/2022 16:47
NEtFOSAA	ND	0.088	0.035	0.035	1	2991-50-6		08/18/2022 16:47
PFDS	ND	0.085	0.025	0.025	1	335-77-3		08/18/2022 16:47
PFDOA	ND	0.088	0.029	0.029	1	307-55-1		08/18/2022 16:47
MeFOSE	ND	0.088	0.027	0.027	1	24448-09-7		08/18/2022 16:47
EtFOSE	ND	0.088	0.028	0.028	1	1691-99-2		08/18/2022 16:47
11-CI-PF3OUdS	ND	0.083	0.022	0.022	1	763051-92-9		08/18/2022 16:47
PFTTrDA	ND	0.088	0.028	0.028	1	72629-94-8		08/18/2022 16:47
PFDoS	ND	0.085	0.023	0.023	1	79780-39-5		08/18/2022 16:47
PFTDA	ND	0.088	0.030	0.030	1	376-06-7		08/18/2022 16:47

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKXC
 Lab Sample ID BLANK-100506
 Lab File ID B220817C_006
 Matrix Soil
 Collected 08/05/2022 12:58
 Received 08/05/2022 12:58
 Extraction Date 08/10/2022 16:12

Total Amount Extracted 5.70g
 Ical ID 220817B02
 CCal File B220817C_002
 Ending CCal File B220817C_013
 Blank File

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C2 PFHxA	0.88	0.83	94	50-150		08/18/2022 16:47
13C4 PFOA	0.88	0.78	89	50-150		08/18/2022 16:47
13C2 PFDA	0.88	0.84	96	50-150		08/18/2022 16:47
13C4 PFOS	0.84	0.73	86	50-150		08/18/2022 16:47

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc.Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	Analyzed
13C4 PFBA	0.88	0.90	103	50-150		08/18/2022 16:47
13C5 PFPeA	0.88	0.89	102	50-150		08/18/2022 16:47
13C3 PFBS	0.81	0.83	102	50-150		08/18/2022 16:47
13C2 4:2FTS	0.82	0.83	101	50-150		08/18/2022 16:47
13C5 PFHxA	0.88	0.99	113	50-150		08/18/2022 16:47
13C4 PFHpA	0.88	0.95	108	50-150		08/18/2022 16:47
13C3 PFHxS	0.83	0.80	96	50-150		08/18/2022 16:47
13C2 6:2FTS	0.83	0.87	105	50-150		08/18/2022 16:47
13C8 PFOA	0.88	0.92	105	50-150		08/18/2022 16:47
13C9 PFNA	0.88	0.88	101	50-150		08/18/2022 16:47
13C8 PFOS	0.84	0.83	99	50-150		08/18/2022 16:47
13C2 8:2FTS	0.84	0.82	98	50-150		08/18/2022 16:47
13C6 PFDA	0.88	0.94	107	50-150		08/18/2022 16:47
d3-MeFOSAA	0.88	0.91	103	50-150		08/18/2022 16:47
13C8 PFOSA	0.88	0.87	99	50-150		08/18/2022 16:47
d5-EtFOSAA	0.88	0.88	100	50-150		08/18/2022 16:47
13C7 PFUdA	0.88	0.95	109	50-150		08/18/2022 16:47
13C2 PFDoA	0.88	1.0	115	50-150		08/18/2022 16:47
13C2 PFTeDA	0.88	0.93	107	50-150		08/18/2022 16:47
13C3 HFPO-DA	0.88	0.89	101	50-150		08/18/2022 16:47
d7-N-MeFOSE	0.88	0.81	92	20-150		08/18/2022 16:47
d9-N-EtFOSE	0.88	0.83	95	20-150		08/18/2022 16:47
d3-N-MeFOSA	0.88	0.78	89	20-150		08/18/2022 16:47
d5-N-EtFOSA	0.88	0.70	80	20-150		08/18/2022 16:47

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKXC
 Lab Sample ID BLANK-100506
 Lab File ID B220817C_006
 Matrix Soil
 Collected 08/05/2022 12:58
 Received 08/05/2022 12:58
 Extraction Date 08/10/2022 16:12

Total Amount Extracted 5.70g
 Ical ID 220817B02
 CCal File B220817C_002
 Ending CCal File B220817C_013
 Blank File

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C2 PFHxA	N/A	N/A	5.80	5.77	16		08/18/2022 16:47
13C4 PFOA	N/A	N/A	7.05	7.07	22		08/18/2022 16:47
13C2 PFDA	N/A	N/A	8.40	8.39	19		08/18/2022 16:47
13C4 PFOS	N/A	N/A	8.88	8.88	17		08/18/2022 16:47

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
13C4 PFBA	N/A	N/A	4.24	4.23	23		08/18/2022 16:47
13C5 PFPeA	N/A	N/A	5.12	5.10	22		08/18/2022 16:47
13C3 PFBS	N/A	N/A	6.03	6.02	22		08/18/2022 16:47
13C2 4:2FTS	N/A	N/A	5.53	5.51	61		08/18/2022 16:47
13C5 PFHxA	N/A	N/A	5.80	5.78	22		08/18/2022 16:47
13C4 PFHpA	N/A	N/A	6.42	6.42	18		08/18/2022 16:47
13C3 PFHxS	N/A	N/A	7.47	7.47	26		08/18/2022 16:47
13C2 6:2FTS	N/A	N/A	6.72	6.73	22		08/18/2022 16:47
13C8 PFOA	N/A	N/A	7.05	7.06	25		08/18/2022 16:47
13C9 PFNA	N/A	N/A	7.72	7.71	24		08/18/2022 16:47
13C8 PFOS	N/A	N/A	8.88	8.86	21		08/18/2022 16:47
13C2 8:2FTS	N/A	N/A	8.02	8.00	35		08/18/2022 16:47
13C6 PFDA	N/A	N/A	8.40	8.38	22		08/18/2022 16:47
d3-MeFOSAA	N/A	N/A	8.26	8.25	29		08/18/2022 16:47
13C8 PFOSA	N/A	N/A	10.49	10.42	13		08/18/2022 16:47
d5-EtFOSAA	N/A	N/A	8.55	8.54	15		08/18/2022 16:47
13C7 PFUdA	N/A	N/A	9.07	9.07	20		08/18/2022 16:47
13C2 PFDoA	N/A	N/A	9.73	9.71	17		08/18/2022 16:47
13C2 PFTeDA	N/A	N/A	11.03	11.02	14		08/18/2022 16:47
13C3 HFPO-DA	N/A	N/A	6.05	6.04	16		08/18/2022 16:47
d7-N-MeFOSE	N/A	N/A	12.45	12.44	67		08/18/2022 16:47
d9-N-EtFOSE	N/A	N/A	12.93	12.88	61		08/18/2022 16:47
d3-N-MeFOSA	N/A	N/A	12.66	12.65	12		08/18/2022 16:47
d5-N-EtFOSA	N/A	N/A	13.09	13.07	76		08/18/2022 16:47

REPORT OF LABORATORY ANALYSIS

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Method Blank Analysis Summary
 PFAS by Isotope Dilution

Client Sample ID BLKXC
 Lab Sample ID BLANK-100506
 Lab File ID B220817C_006
 Matrix Soil
 Collected 08/05/2022 12:58
 Received 08/05/2022 12:58
 Extraction Date 08/10/2022 16:12

Total Amount Extracted 5.70g
 Ical ID 220817B02
 CCal File B220817C_002
 Ending CCal File B220817C_013
 Blank File

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers	Analyzed
PFBA	N/A	N/A	0.00	4.23	ND		08/18/2022 16:47
PFPeA	N/A	N/A	5.14	5.15	ND		08/18/2022 16:47
HFPO-DA	0.00	0.27	0.00	6.07	ND		08/18/2022 16:47
PFBS	0.00	0.41	0.00	6.02	ND		08/18/2022 16:47
PFHxA	0.00	0.09	0.00	5.81	ND		08/18/2022 16:47
4:2 FTS	0.00	0.84	0.00	5.54	ND		08/18/2022 16:47
PFPeS	0.00	0.41	0.00	6.79	ND		08/18/2022 16:47
PFHpA	0.00	0.28	0.00	6.44	ND		08/18/2022 16:47
DONA	0.00	0.56	0.00	6.67	ND		08/18/2022 16:47
PFHxS	0.00	0.37	0.00	7.49	ND		08/18/2022 16:47
PFOA	0.00	0.39	0.00	7.08	ND		08/18/2022 16:47
6:2 FTS	0.81	0.76	6.73	6.74	ND		08/18/2022 16:47
PFHpS	0.00	0.35	0.00	8.20	ND		08/18/2022 16:47
PFNA	0.22	0.12	7.73	7.73	ND		08/18/2022 16:47
PFOSAm	N/A	N/A	10.50	10.44	ND		08/18/2022 16:47
PFOS	0.00	0.35	0.00	8.90	ND		08/18/2022 16:47
MeFOSA	0.00	0.59	0.00	12.69	ND		08/18/2022 16:47
PFDA	0.00	0.17	0.00	8.40	ND		08/18/2022 16:47
EtFOSAm	0.00	0.51	0.00	13.10	ND		08/18/2022 16:47
8:2 FTS	0.00	0.84	0.00	8.02	ND		08/18/2022 16:47
9-CI-PF3ON	0.00	0.05	0.00	9.39	ND		08/18/2022 16:47
PFNS	0.00	0.52	0.00	9.58	ND		08/18/2022 16:47
PFUnDA	0.00	0.11	0.00	9.05	ND		08/18/2022 16:47
NMeFOSAA	0.00	0.94	0.00	8.26	ND		08/18/2022 16:47
NEtFOSAA	0.00	0.56	0.00	8.55	ND		08/18/2022 16:47
PFDS	0.00	0.35	0.00	10.19	ND		08/18/2022 16:47
PFDOA	0.00	0.17	0.00	9.72	ND		08/18/2022 16:47
MeFOSE	N/A	N/A	0.00	12.45	ND		08/18/2022 16:47
EtFOSE	0.00	0.00	0.00	12.92	ND		08/18/2022 16:47
11-CI-PF3OUdS	0.00	0.02	0.00	10.66	ND		08/18/2022 16:47
PFTTrDA	0.00	0.14	0.00	10.37	ND		08/18/2022 16:47
PFDoS	0.00	0.45	0.00	11.43	ND		08/18/2022 16:47
PFTDA	0.00	0.23	0.00	11.02	ND		08/18/2022 16:47

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID	LCS-100573	Instrument ID	10LCMS02
Run File Name	B220817C_005	Column ID	118AB10133
Analyzed	08/18/2022 16:27	Ical ID	220817B02
Injected By	QL	Level	L

Injection Internal Standards

Compound	Known Conc. ng/L	Conc. Found ng/L	%Recovery	Recovery Limits	Qualifiers
13C2_PFHxA	20	16	80	50-150	
13C4_PFOA	20	18	88	50-150	
13C2_PFDA	20	16	80	50-150	
13C4_PFOS	19	17	89	50-150	

Extracted Internal Standards

Compound	Known Conc. ng/L	Conc. Found ng/L	%Recovery	Recovery Limits	Qualifiers
13C4_PFBa	20	21	104	50-150	
13C5_PFPeA	20	19	97	50-150	
13C3_PFBs	19	19	101	50-150	
13C2_4:2Fts	19	18	98	50-150	
13C5_PFHxA	20	20	99	50-150	
13C4_PFHpA	20	20	98	50-150	
13C3_PFHxS	19	18	96	50-150	
13C2_6:2Fts	19	18	95	50-150	
13C8_PFOA	20	21	103	50-150	
13C9_PFNAA	20	18	87	50-150	
13C8_PFOS	19	14	75	50-150	
13C2_8:2Fts	19	12	64	50-150	
13C6_PFDA	20	15	72	50-150	
d3-MeFOSAA	20	11	56	50-150	
13C8_PFOSA	20	12	60	50-150	
d5-EtFOSAA	20	13	65	50-150	
13C7_PFUdA	20	14	68	50-150	
13C2_PFDaA	20	14	67	50-150	
13C2_PFTeDA	20	15	76	50-150	
13C3_HFPO-DA	20	19	95	50-150	
d7-N-MeFOSE	20	9.7	48	20-150	
d9-N-EtFOSE	20	8.8	44	20-150	
d3-N-MeFOSA	20	5.2	26	20-150	
d5-N-EtFOSA	20	4.5	22	20-150	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100573
 Run File Name B220817C_005
 Analyzed 08/18/2022 16:27
 Injected By QL

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level L

Native Analytes

Compound	Known Conc. ng/L	Conc. Found ng/L	%Recovery	Recovery Limits	Qualifiers	CAS No.
PFBA	4.0	4.2	104	50-150		375-22-4
PFPeA	4.0	4.2	104	50-150		2706-90-3
HFPO-DA	4.0	3.9	95	50-150		13252-13-6
PFBS	3.6	3.6	100	50-150		375-73-5
PFHxA	4.0	4.2	105	50-150		307-24-4
4:2 FTS	3.8	3.6	94	50-150		757124-72-4
PFPeS	3.8	3.7	97	50-150		2706-91-4
PFHpA	4.0	4.2	104	50-150		375-85-9
DONA	3.8	3.8	100	50-150		919005-14-4
PFHxS	3.7	3.5	96	50-150		355-46-4
PFOA	4.0	4.2	103	50-150		335-67-1
6:2 FTS	3.8	4.0	104	50-150		27619-97-2
PFHpS	3.8	4.3	111	50-150		375-92-8
PFNA	4.0	3.8	94	50-150		375-95-1
PFOSAm	4.0	3.8	94	50-150		754-91-6
PFOS	3.7	3.6	97	50-150		1763-23-1
MeFOSA	4.0	4.0	99	50-150		31506-32-8
PFDA	4.0	3.7	91	50-150		335-76-2
EtFOSAm	4.0	3.4	85	50-150		4151-50-2
8:2 FTS	3.9	4.3	110	50-150		39108-34-4
9-CI-PF3ON	3.8	3.2	84	50-150		756426-58-1
PFNS	3.9	3.0	79	50-150		68259-12-1
PFUnDA	4.0	3.5	88	50-150		2058-94-8
NMeFOSAA	4.0	4.2	103	50-150		2355-31-9
NEtFOSAA	4.0	4.1	101	50-150		2991-50-6
PFDS	3.9	3.2	82	50-150		335-77-3
PFDOA	4.0	3.8	93	50-150		307-55-1
MeFOSE	4.0	3.8	94	50-150		24448-09-7
EtFOSE	4.0	4.1	101	50-150		1691-99-2
11-CI-PF3OUdS	3.8	3.0	79	50-150		763051-92-9
PFTrDA	4.0	3.8	93	50-150		72629-94-8
PFDoS	3.9	3.1	79	50-150		79780-39-5
PFTDA	4.0	3.8	94	50-150		376-06-7

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100573
 Run File Name B220817C_005
 Analyzed 08/18/2022 16:27
 Injected By QL

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level L

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.79	5.77	1725	
13C4 PFOA	N/A	N/A	7.05	7.07	2111	
13C2 PFDA	N/A	N/A	8.40	8.39	1392	
13C4 PFOS	N/A	N/A	8.88	8.88	2316	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.24	4.23	2372	
13C5 PFPeA	N/A	N/A	5.12	5.10	2239	
13C3 PFBS	N/A	N/A	6.03	6.02	2419	
13C2 4:2FTS	N/A	N/A	5.53	5.51	796	
13C5 PFHxA	N/A	N/A	5.79	5.78	2326	
13C4 PFHpA	N/A	N/A	6.42	6.42	1810	
13C3 PFHxS	N/A	N/A	7.47	7.47	2181	
13C2 6:2FTS	N/A	N/A	6.72	6.73	2617	
13C8 PFOA	N/A	N/A	7.05	7.06	2858	
13C9 PFNA	N/A	N/A	7.71	7.71	2089	
13C8 PFOS	N/A	N/A	8.88	8.86	7035	
13C2 8:2FTS	N/A	N/A	8.02	8.00	1508	
13C6 PFDA	N/A	N/A	8.41	8.38	1570	
d3-MeFOSAA	N/A	N/A	8.26	8.25	1421	
13C8 PFOSA	N/A	N/A	10.48	10.42	1028	
d5-EtFOSAA	N/A	N/A	8.55	8.54	1407	
13C7 PFUdA	N/A	N/A	9.07	9.07	3254	
13C2 PFDoA	N/A	N/A	9.73	9.71	1685	
13C2 PFTeDA	N/A	N/A	11.03	11.02	1349	
13C3 HFPO-DA	N/A	N/A	6.05	6.04	1730	
d7-N-MeFOSE	N/A	N/A	12.45	12.44	54	
d9-N-EtFOSE	N/A	N/A	12.92	12.88	586	
d3-N-MeFOSA	N/A	N/A	12.66	12.65	645	
d5-N-EtFOSA	N/A	N/A	13.09	13.07	1074	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100573
 Run File Name B220817C_005
 Analyzed 08/18/2022 16:27
 Injected By QL

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level L

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.24	4.23	176	
PFPeA	N/A	N/A	5.13	5.15	417	
HFPO-DA	0.30	0.27	6.06	6.07	963	
PFBS	0.44	0.41	6.04	6.02	1338	
PFHxA	0.08	0.09	5.80	5.81	285	
4:2 FTS	0.85	0.84	5.54	5.54	445451	
PFPeS	0.41	0.41	6.76	6.79	1444	
PFHpA	0.30	0.28	6.42	6.44	20	
DONA	0.58	0.56	6.65	6.67	1570	
PFHxS	0.39	0.37	7.47	7.49	1269	
PFOA	0.41	0.39	7.06	7.08	204	
6:2 FTS	0.89	0.76	6.72	6.74	354	
PFHpS	0.42	0.35	8.20	8.20	2630	
PFNA	0.13	0.12	7.72	7.73	616	
PFOSAm	N/A	N/A	10.49	10.44	800	
PFOS	0.38	0.35	8.89	8.90	1406	
MeFOSA	0.56	0.59	12.68	12.69	403	
PFDA	0.19	0.17	8.41	8.40	335	
EtFOSAm	0.64	0.51	13.11	13.10	1158	
8:2 FTS	0.73	0.84	8.02	8.02	2243	
9-CI-PF3ON	0.06	0.05	9.38	9.39	830	
PFNS	0.50	0.52	9.56	9.58	1196	
PFUnDA	0.13	0.11	9.08	9.05	372	
NMeFOSAA	0.78	0.94	8.27	8.26	2381248	
NEtFOSAA	0.60	0.56	8.56	8.55	356	
PFDS	0.33	0.35	10.21	10.19	1443	
PFDOA	0.18	0.17	9.74	9.72	247	
MeFOSE	N/A	N/A	12.49	12.45	285	
EtFOSE	0.00	0.00	12.96	12.92	315	
11-CI-PF3OUdS	0.02	0.02	10.68	10.66	428	
PFTrDA	0.14	0.14	10.39	10.37	233	
PFDoS	0.49	0.45	11.43	11.43	2051	
PFTDA	0.23	0.23	11.03	11.02	216	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100507
 Run File Name B220823B_027
 Analyzed 08/23/2022 21:56
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level L

Injection Internal Standards

Compound	Known Conc. ug/Kg	Conc. Found ug/Kg	%Recovery	Recovery Limits	Qualifiers
13C2 PFHxA	0.98	0.78	80	50-150	
13C4 PFOA	0.98	0.77	78	50-150	
13C2 PFDA	0.98	0.80	81	50-150	
13C4 PFOS	0.94	0.83	88	50-150	

Extracted Internal Standards

Compound	Known Conc. ug/Kg	Conc. Found ug/Kg	%Recovery	Recovery Limits	Qualifiers
13C4 PFBA	0.98	0.79	81	50-150	
13C5 PFPeA	0.98	0.77	79	50-150	
13C3 PFBS	0.91	0.71	78	50-150	
13C2 4:2FTS	0.92	0.67	73	50-150	
13C5 PFHxA	0.98	0.83	84	50-150	
13C4 PFHpA	0.98	0.76	78	50-150	
13C3 PFHxS	0.93	0.75	81	50-150	
13C2 6:2FTS	0.93	0.78	84	50-150	
13C8 PFOA	0.98	0.78	80	50-150	
13C9 PFNA	0.98	0.77	78	50-150	
13C8 PFOS	0.94	0.74	79	50-150	
13C2 8:2FTS	0.94	0.81	87	50-150	
13C6 PFDA	0.98	0.79	81	50-150	
d3-MeFOSAA	0.98	0.81	82	50-150	
13C8 PFOSA	0.98	0.77	79	50-150	
d5-EtFOSAA	0.98	0.80	82	50-150	
13C7 PFUdA	0.98	0.79	80	50-150	
13C2 PFDoA	0.98	0.77	78	50-150	
13C2 PFTeDA	0.98	0.77	79	50-150	
13C3 HFPO-DA	0.98	0.76	77	50-150	
d7-N-MeFOSE	0.98	0.74	76	20-150	
d9-N-EtFOSE	0.98	0.83	84	20-150	
d3-N-MeFOSA	0.98	0.67	68	20-150	
d5-N-EtFOSA	0.98	0.62	63	20-150	

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100507
 Run File Name B220823B_027
 Analyzed 08/23/2022 21:56
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level L

Native Analytes

Compound	Known Conc. ug/Kg	Conc. Found ug/Kg	%Recovery	Recovery Limits	Qualifiers	CAS No.
PFBA	0.20	0.22	110	50-150		375-22-4
PFPeA	0.20	0.22	111	50-150		2706-90-3
HFPO-DA	0.20	0.21	108	50-150		13252-13-6
PFBS	0.17	0.20	115	50-150		375-73-5
PFHxA	0.20	0.23	116	50-150		307-24-4
4:2 FTS	0.18	0.20	110	50-150		757124-72-4
PFPeS	0.18	0.21	116	50-150		2706-91-4
PFHpA	0.20	0.23	120	50-150		375-85-9
DONA	0.19	0.24	127	50-150		919005-14-4
PFHxS	0.18	0.19	105	50-150		355-46-4
PFOA	0.20	0.23	116	50-150		335-67-1
6:2 FTS	0.19	0.21	113	50-150		27619-97-2
PFHpS	0.19	0.21	111	50-150		375-92-8
PFNA	0.20	0.22	110	50-150		375-95-1
PFOSAm	0.20	0.21	108	50-150		754-91-6
PFOS	0.18	0.19	106	50-150		1763-23-1
MeFOSA	0.20	0.23	115	50-150		31506-32-8
PFDA	0.20	0.24	120	50-150		335-76-2
EtFOSAm	0.20	0.21	106	50-150		4151-50-2
8:2 FTS	0.19	0.18	93	50-150		39108-34-4
9-CI-PF3ON	0.18	0.21	117	50-150		756426-58-1
PFNS	0.19	0.21	110	50-150		68259-12-1
PFUnDA	0.20	0.21	107	50-150		2058-94-8
NMeFOSAA	0.20	0.22	115	50-150		2355-31-9
NEtFOSAA	0.20	0.21	109	50-150		2991-50-6
PFDS	0.19	0.20	104	50-150		335-77-3
PFDOA	0.20	0.18	91	50-150		307-55-1
MeFOSE	0.20	0.19	96	50-150		24448-09-7
EtFOSE	0.20	0.21	105	50-150		1691-99-2
11-CI-PF3OUdS	0.18	0.19	101	50-150		763051-92-9
PFTrDA	0.20	0.20	103	50-150		72629-94-8
PFDoS	0.19	0.20	108	50-150		79780-39-5
PFTDA	0.20	0.26	135	50-150		376-06-7

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100507
 Run File Name B220823B_027
 Analyzed 08/23/2022 21:56
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level L

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.86	5.77	2170	
13C4 PFOA	N/A	N/A	7.10	7.07	1947	
13C2 PFDA	N/A	N/A	8.44	8.39	1462	
13C4 PFOS	N/A	N/A	8.91	8.88	2158	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.25	4.23	2116	
13C5 PFPeA	N/A	N/A	5.18	5.10	2693	
13C3 PFBS	N/A	N/A	6.10	6.09	1945	
13C2 4:2FTS	N/A	N/A	5.60	5.51	650	
13C5 PFHxA	N/A	N/A	5.86	5.78	1979	
13C4 PFHpA	N/A	N/A	6.48	6.42	1675	
13C3 PFHxS	N/A	N/A	7.52	7.47	1617	
13C2 6:2FTS	N/A	N/A	6.78	6.73	1506	
13C8 PFOA	N/A	N/A	7.11	7.06	1915	
13C9 PFNA	N/A	N/A	7.76	7.71	1691	
13C8 PFOS	N/A	N/A	8.91	8.86	2101	
13C2 8:2FTS	N/A	N/A	8.06	8.00	10819	
13C6 PFDA	N/A	N/A	8.44	8.38	1583	
d3-MeFOSAA	N/A	N/A	8.30	8.25	775	
13C8 PFOSA	N/A	N/A	10.46	10.42	1258	
d5-EtFOSAA	N/A	N/A	8.58	8.54	1000	
13C7 PFUdA	N/A	N/A	9.10	9.07	1849	
13C2 PFDoA	N/A	N/A	9.76	9.71	965	
13C2 PFTeDA	N/A	N/A	11.04	11.02	1014	
13C3 HFPO-DA	N/A	N/A	6.12	6.04	1280	
d7-N-MeFOSE	N/A	N/A	12.48	12.44	67	
d9-N-EtFOSE	N/A	N/A	12.95	12.92	449	
d3-N-MeFOSA	N/A	N/A	12.69	12.65	1140	
d5-N-EtFOSA	N/A	N/A	13.11	13.07	770	

REPORT OF LABORATORY ANALYSIS

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LCS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID LCS-100507
 Run File Name B220823B_027
 Analyzed 08/23/2022 21:56
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level L

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.26	4.23	173	
PFPeA	N/A	N/A	5.19	5.21	292	
HFPO-DA	0.27	0.33	6.13	6.07	587	
PFBS	0.41	0.46	6.10	6.08	858	
PFHxA	0.08	0.08	5.87	5.85	204	
4:2 FTS	0.83	0.80	5.61	5.54	1919	
PFPeS	0.39	0.43	6.82	6.79	1179	
PFHpA	0.32	0.29	6.49	6.44	21	
DONA	0.59	0.53	6.71	6.67	1125	
PFHxS	0.37	0.37	7.52	7.49	808	
PFOA	0.39	0.37	7.11	7.08	183	
6:2 FTS	0.92	1.00	6.78	6.74	573	
PFHpS	0.39	0.39	8.24	8.20	1011	
PFNA	0.15	0.12	7.77	7.73	453	
PFOSAm	N/A	N/A	10.47	10.44	933	
PFOS	0.39	0.37	8.92	8.90	449	
MeFOSA	0.50	0.48	12.71	12.69	822	
PFDA	0.18	0.18	8.45	8.40	424	
EtFOSAm	0.54	0.62	13.13	13.10	691	
8:2 FTS	1.00	0.73	8.07	8.02	1111	
9-CI-PF3ON	0.06	0.05	9.41	9.39	1089	
PFNS	0.45	0.47	9.59	9.58	1382	
PFUnDA	0.14	0.14	9.11	9.05	367	
NMeFOSAA	0.87	0.93	8.31	8.26	517	
NEtFOSAA	0.67	0.67	8.60	8.55	345	
PFDS	0.33	0.36	10.24	10.19	1229	
PFDOA	0.19	0.16	9.76	9.72	279	
MeFOSE	N/A	N/A	12.52	12.45	307	
EtFOSE	0.00	0.00	12.99	12.92	401	
11-CI-PF3OUdS	0.02	0.02	10.70	10.66	525	
PFTrDA	0.17	0.17	10.42	10.37	300	
PFDoS	0.45	0.44	11.45	11.43	1675	
PFTDA	0.24	0.25	11.05	11.02	307	

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MS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10620121001-MS
 Run File Name B220823B_009
 Analyzed 08/23/2022 15:56
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers
13C2 PFHxA	1.4	1.2	90	50-150	
13C4 PFOA	1.4	1.2	91	50-150	
13C2 PFDA	1.4	1.0	77	50-150	
13C4 PFOS	1.3	1.1	81	50-150	

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers
13C4 PFBA	1.4	0.95	69	25-150	
13C5 PFPeA	1.4	0.92	68	25-150	
13C3 PFBS	1.3	0.85	67	25-150	
13C2 4:2FTS	1.3	0.85	66	25-150	
13C5 PFHxA	1.4	0.98	72	25-150	
13C4 PFHpA	1.4	0.96	70	25-150	
13C3 PFHxS	1.3	0.85	65	25-150	
13C2 6:2FTS	1.3	0.85	66	25-150	
13C8 PFOA	1.4	0.88	64	25-150	
13C9 PFNA	1.4	0.80	58	25-150	
13C8 PFOS	1.3	0.87	66	25-150	
13C2 8:2FTS	1.3	0.81	62	25-150	
13C6 PFDA	1.4	0.99	72	25-150	
d3-MeFOSAA	1.4	0.97	71	25-150	
13C8 PFOSA	1.4	0.67	49	25-150	
d5-EtFOSAA	1.4	0.81	59	25-150	
13C7 PFUdA	1.4	0.89	65	25-150	
13C2 PFDoA	1.4	0.88	64	25-150	
13C2 PFTeDA	1.4	0.84	62	25-150	
13C3 HFPO-DA	1.4	0.92	67	25-150	
d7-N-MeFOSE	1.4	0.015	1	10-150	R
d9-N-EtFOSE	1.4	0.016	1	10-150	R
d3-N-MeFOSA	1.4	0.0029	0	10-150	R
d5-N-EtFOSA	1.4	0.0027	0	10-150	R

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MS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10620121001-MS
 Run File Name B220823B_009
 Analyzed 08/23/2022 15:56
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level

Native Analytes

Compound	Sample Conc. (ug/Kg)	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	Qualifiers	CAS No.
PFBA	0.00	0.27	0.28	103	50-150		375-22-4
PFPeA	0.00	0.27	0.31	114	50-150		2706-90-3
HFPO-DA	0.00	0.27	0.30	109	50-150		13252-13-6
PFBS	0.00	0.24	0.25	103	50-150		375-73-5
PFHxA	0.00	0.27	0.29	106	50-150		307-24-4
4:2 FTS	0.00	0.26	0.25	98	50-150		757124-72-4
PFPeS	0.00	0.26	0.29	113	50-150		2706-91-4
PFHpA	0.00	0.27	0.28	104	50-150		375-85-9
DONA	0.00	0.26	0.30	118	50-150		919005-14-4
PFHxS	0.00	0.25	0.27	109	50-150		355-46-4
PFOA	0.00	0.27	0.31	113	50-150		335-67-1
6:2 FTS	0.00	0.26	0.35	134	50-150		27619-97-2
PFHpS	0.00	0.26	0.26	100	50-150		375-92-8
PFNA	0.00	0.27	0.35	126	50-150		375-95-1
PFOSAm	0.00	0.27	0.30	109	50-150		754-91-6
PFOS	0.00	0.25	0.25	97	50-150		1763-23-1
MeFOSA	0.00	0.27	0.083	30	50-150	IJR	31506-32-8
PFDA	0.00	0.27	0.26	94	50-150		335-76-2
EtFOSAm	0.00	0.27	0.30	109	50-150	I	4151-50-2
8:2 FTS	0.00	0.26	0.25	96	50-150		39108-34-4
9-CI-PF3ON	0.00	0.25	0.26	104	50-150		756426-58-1
PFNS	0.00	0.25	0.27	106	50-150		68259-12-1
PFUnDA	0.00	0.27	0.30	110	50-150		2058-94-8
NMeFOSAA	0.00	0.27	0.28	104	50-150		2355-31-9
NEtFOSAA	0.00	0.27	0.28	103	50-150		2991-50-6
PFDS	0.00	0.26	0.25	95	50-150		335-77-3
PFDOA	0.00	0.27	0.32	116	50-150		307-55-1
MeFOSE	0.00	0.27	0.34	124	50-150		24448-09-7
EtFOSE	0.00	0.27	0.47	170	50-150	R	1691-99-2
11-CI-PF3OUdS	0.00	0.26	0.24	95	50-150		763051-92-9
PFTTrDA	0.00	0.27	0.27	100	50-150		72629-94-8
PFDoS	0.00	0.26	0.23	88	50-150		79780-39-5
PFTDA	0.00	0.27	0.26	94	50-150		376-06-7

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MS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10620121001-MS
 Run File Name B220823B_009
 Analyzed 08/23/2022 15:56
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.87	5.77	2146	
13C4 PFOA	N/A	N/A	7.09	7.07	1797	
13C2 PFDA	N/A	N/A	8.42	8.39	1336	
13C4 PFOS	N/A	N/A	8.88	8.88	1365	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.29	4.23	2071	
13C5 PFPeA	N/A	N/A	5.21	5.10	2437	
13C3 PFBS	N/A	N/A	6.09	6.09	1239	
13C2 4:2FTS	N/A	N/A	5.61	5.51	769	
13C5 PFHxA	N/A	N/A	5.87	5.78	1368	
13C4 PFHpA	N/A	N/A	6.47	6.42	1477	
13C3 PFHxS	N/A	N/A	7.50	7.47	1279	
13C2 6:2FTS	N/A	N/A	6.76	6.73	654	
13C8 PFOA	N/A	N/A	7.09	7.06	1435	
13C9 PFNA	N/A	N/A	7.74	7.71	1591	
13C8 PFOS	N/A	N/A	8.89	8.86	1351	
13C2 8:2FTS	N/A	N/A	8.04	8.00	4481	
13C6 PFDA	N/A	N/A	8.42	8.38	1414	
d3-MeFOSAA	N/A	N/A	8.28	8.25	1735	
13C8 PFOSA	N/A	N/A	10.53	10.42	1458	
d5-EtFOSAA	N/A	N/A	8.56	8.54	1049	
13C7 PFUdA	N/A	N/A	9.08	9.07	1596	
13C2 PFDoA	N/A	N/A	9.74	9.71	1137	
13C2 PFTeDA	N/A	N/A	11.03	11.02	1194	
13C3 HFPO-DA	N/A	N/A	6.12	6.04	1159	
d7-N-MeFOSE	N/A	N/A	12.46	12.44	30	R
d9-N-EtFOSE	N/A	N/A	12.94	12.92	105	R
d3-N-MeFOSA	N/A	N/A	12.68	12.65	49	R
d5-N-EtFOSA	N/A	N/A	13.10	13.07	48	R

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MS Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10620121001-MS
 Run File Name B220823B_009
 Analyzed 08/23/2022 15:56
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.29	4.23	146	
PFPeA	N/A	N/A	5.21	5.21	267	
HFPO-DA	0.28	0.26	6.13	6.07	530	
PFBS	0.42	0.43	6.10	6.08	475	
PFHxA	0.07	0.09	5.88	5.85	259	
4:2 FTS	0.84	0.81	5.62	5.54	2135	
PFPeS	0.38	0.42	6.80	6.79	599	
PFHpA	0.28	0.32	6.48	6.44	21	
DONA	0.57	0.56	6.70	6.67	756	
PFHxS	0.37	0.37	7.50	7.49	482	
PFOA	0.42	0.39	7.10	7.08	204	
6:2 FTS	0.82	0.93	6.77	6.74	398	
PFHpS	0.39	0.41	8.21	8.20	833	
PFNA	0.13	0.12	7.75	7.73	404	
PFOSAm	N/A	N/A	10.54	10.44	1147	
PFOS	0.37	0.35	8.90	8.90	541	
MeFOSA	3.00	0.47	12.73	12.69	174	IJR
PFDA	0.19	0.18	8.42	8.40	241	
EtFOSAm	0.19	0.50	13.13	13.10	115	I
8:2 FTS	0.92	0.96	8.04	8.02	233177	
9-Cl-PF3ON	0.05	0.06	9.38	9.39	931	
PFNS	0.49	0.47	9.56	9.58	1200	
PFUnDA	0.13	0.14	9.09	9.05	312	
NMeFOSAA	0.81	0.82	8.29	8.26	17547	
NEtFOSAA	0.67	0.68	8.58	8.55	343	
PFDS	0.34	0.32	10.22	10.19	1220	
PFDOA	0.18	0.15	9.74	9.72	285	
MeFOSE	N/A	N/A	12.51	12.45	36	
EtFOSE	0.00	0.00	12.98	12.92	44	R
11-Cl-PF3OUdS	0.02	0.03	10.68	10.66	522	
PFTrDA	0.16	0.16	10.40	10.37	220	
PFDoS	0.44	0.46	11.43	11.43	2055	
PFTDA	0.23	0.26	11.04	11.02	206	

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MSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10620121001-MSD
 Run File Name B220823B_010
 Analyzed 08/23/2022 16:16
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level

Injection Internal Standards

Compound	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	RPD	Qualifiers
13C2_PFHxA	1.5	1.3	88	50-150	2.9	
13C4_PFOA	1.5	1.4	91	50-150	0.3	
13C2_PFDA	1.5	1.1	71	50-150	7.3	
13C4_PFOS	1.4	1.2	82	50-150	0.6	

Extracted Internal Standards

Compound	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	RPD	Qualifiers
13C4_PFBFA	1.5	1.1	74	25-150	6.4	
13C5_PFPeA	1.5	1.1	73	25-150	8.0	
13C3_PFBFS	1.4	0.94	68	25-150	1.8	
13C2_4:2FTS	1.4	0.93	67	25-150	1.2	
13C5_PFHxA	1.5	1.1	75	25-150	4.4	
13C4_PFHpA	1.5	1.1	72	25-150	2.7	
13C3_PFHxS	1.4	0.96	68	25-150	4.5	
13C2_6:2FTS	1.4	1.0	72	25-150	8.7	
13C8_PFOA	1.5	1.1	76	25-150	17.3	
13C9_PFNA	1.5	1.0	69	25-150	16.5	
13C8_PFOS	1.4	0.98	69	25-150	3.3	
13C2_8:2FTS	1.4	0.99	70	25-150	12.4	
13C6_PFDA	1.5	1.2	78	25-150	8.0	
d3-MeFOSAA	1.5	1.1	77	25-150	8.3	
13C8_PFOSA	1.5	0.80	54	25-150	9.6	
d5-EtFOSAA	1.5	0.97	65	25-150	9.5	
13C7_PFUdA	1.5	1.1	71	25-150	9.2	
13C2_PFDaA	1.5	1.2	82	25-150	23.8	
13C2_PFTeDA	1.5	0.89	60	25-150	2.4	
13C3_HFPO-DA	1.5	1.1	71	25-150	5.5	
d7-N-MeFOSE	1.5	0.011	1	10-150	38.3	R
d9-N-EtFOSE	1.5	0.016	1	10-150	6.0	R
d3-N-MeFOSA	1.5	0.0017	0	10-150	62.2	R
d5-N-EtFOSA	1.5	0.0016	0	10-150	56.5	R

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MSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10620121001-MSD
 Run File Name B220823B_010
 Analyzed 08/23/2022 16:16
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level

Native Analytes

Compound	Sample Conc. (ug/Kg)	Known Conc. (ug/Kg)	Conc. Found (ug/Kg)	%Recovery	Recovery Limits	RPD	Qualifiers	CAS No.
PFBA	0.00	0.30	0.32	107	50-150	3.9		375-22-4
PFPeA	0.00	0.30	0.35	118	50-150	3.2		2706-90-3
HFPO-DA	0.00	0.30	0.33	110	50-150	1.0		13252-13-6
PFBS	0.00	0.26	0.29	109	50-150	5.1		375-73-5
PFHxA	0.00	0.30	0.34	116	50-150	9.2		307-24-4
4:2 FTS	0.00	0.28	0.31	113	50-150	13.7		757124-72-4
PFPeS	0.00	0.28	0.31	111	50-150	1.7		2706-91-4
PFHpA	0.00	0.30	0.34	114	50-150	8.8		375-85-9
DONA	0.00	0.28	0.30	109	50-150	8.2		919005-14-4
PFHxS	0.00	0.27	0.30	109	50-150	0.2		355-46-4
PFOA	0.00	0.30	0.29	98	50-150	14.2		335-67-1
6:2 FTS	0.00	0.28	0.31	109	50-150	20.1		27619-97-2
PFHpS	0.00	0.28	0.29	104	50-150	4.0		375-92-8
PFNA	0.00	0.30	0.33	113	50-150	11.6		375-95-1
PFOSAm	0.00	0.30	0.33	110	50-150	1.0		754-91-6
PFOS	0.00	0.27	0.30	108	50-150	11.0		1763-23-1
MeFOSA	0.00	0.30	0.17	59	50-150	63.5	I	31506-32-8
PFDA	0.00	0.30	0.29	96	50-150	2.2		335-76-2
EtFOSAm	0.00	0.30	0.49	163	50-150	39.9	R	4151-50-2
8:2 FTS	0.00	0.29	0.28	99	50-150	4.0		39108-34-4
9-CI-PF3ON	0.00	0.28	0.31	112	50-150	8.0		756426-58-1
PFNS	0.00	0.28	0.32	115	50-150	8.2		68259-12-1
PFUnDA	0.00	0.30	0.34	114	50-150	3.4		2058-94-8
NMeFOSAA	0.00	0.30	0.32	107	50-150	2.9		2355-31-9
NEtFOSAA	0.00	0.30	0.31	103	50-150	0.4		2991-50-6
PFDS	0.00	0.29	0.29	101	50-150	6.1		335-77-3
PFDOA	0.00	0.30	0.30	102	50-150	12.5		307-55-1
MeFOSE	0.00	0.30	0.29	97	50-150	24.9		24448-09-7
EtFOSE	0.00	0.30	0.29	98	50-150	53.9		1691-99-2
11-CI-PF3OUdS	0.00	0.28	0.28	102	50-150	6.6		763051-92-9
PFTTrDA	0.00	0.30	0.26	89	50-150	12.2		72629-94-8
PFDoS	0.00	0.29	0.26	92	50-150	4.2		79780-39-5
PFTDA	0.00	0.30	0.32	108	50-150	13.1		376-06-7

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MSD Analysis Summary
 PFAS by Isotope Dilution

Lab Sample ID 10620121001-MSD
 Run File Name B220823B_010
 Analyzed 08/23/2022 16:16
 Injected By NH

Instrument ID 10LCMS02
 Column ID 118AB10133
 Ical ID 220817B02
 Level

Injection Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C2 PFHxA	N/A	N/A	5.86	5.77	1500	
13C4 PFOA	N/A	N/A	7.10	7.07	1751	
13C2 PFDA	N/A	N/A	8.43	8.39	1553	
13C4 PFOS	N/A	N/A	8.90	8.88	1620	

Extracted Internal Standards

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
13C4 PFBA	N/A	N/A	4.28	4.23	1684	
13C5 PFPeA	N/A	N/A	5.20	5.10	2159	
13C3 PFBS	N/A	N/A	6.08	6.09	1422	
13C2 4:2FTS	N/A	N/A	5.60	5.51	516	
13C5 PFHxA	N/A	N/A	5.86	5.78	1218	
13C4 PFHpA	N/A	N/A	6.47	6.42	1615	
13C3 PFHxS	N/A	N/A	7.50	7.47	1359	
13C2 6:2FTS	N/A	N/A	6.77	6.73	1003	
13C8 PFOA	N/A	N/A	7.10	7.06	1918	
13C9 PFNA	N/A	N/A	7.75	7.71	1437	
13C8 PFOS	N/A	N/A	8.90	8.86	2216	
13C2 8:2FTS	N/A	N/A	8.05	8.00	2631	
13C6 PFDA	N/A	N/A	8.43	8.38	1310	
d3-MeFOSAA	N/A	N/A	8.29	8.25	1090	
13C8 PFOSA	N/A	N/A	10.54	10.42	1141	
d5-EtFOSAA	N/A	N/A	8.58	8.54	2589	
13C7 PFUdA	N/A	N/A	9.10	9.07	1884	
13C2 PFDoA	N/A	N/A	9.75	9.71	1110	
13C2 PFTeDA	N/A	N/A	11.04	11.02	1146	
13C3 HFPO-DA	N/A	N/A	6.11	6.04	1467	
d7-N-MeFOSE	N/A	N/A	12.47	12.44	24	R
d9-N-EtFOSE	N/A	N/A	12.95	12.92	95	R
d3-N-MeFOSA	N/A	N/A	12.67	12.65	148	R
d5-N-EtFOSA	N/A	N/A	13.10	13.07	38	R

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 Level

Native Analytes

Compound	Ion Abund. Ratio	Reference Ratio	Retention Time	Reference Time	Signal to Noise	Qualifiers
PFBA	N/A	N/A	4.29	4.23	192	
PFPeA	N/A	N/A	5.20	5.21	254	
HFPO-DA	0.26	0.26	6.12	6.07	532	
PFBS	0.46	0.43	6.09	6.08	592	
PFHxA	0.07	0.09	5.86	5.85	228	
4:2 FTS	0.80	0.81	5.61	5.54	6202	
PFPeS	0.43	0.42	6.80	6.79	624	
PFHpA	0.31	0.32	6.47	6.44	20	
DONA	0.59	0.56	6.70	6.67	811	
PFHxS	0.37	0.37	7.51	7.49	590	
PFOA	0.37	0.39	7.10	7.08	186	
6:2 FTS	0.86	0.93	6.77	6.74	328	
PFHpS	0.40	0.41	8.23	8.20	874	
PFNA	0.13	0.12	7.76	7.73	485	
PFOSAm	N/A	N/A	10.54	10.44	845	
PFOS	0.34	0.35	8.91	8.90	428	
MeFOSA	2.10	0.47	12.71	12.69	27	I
PFDA	0.20	0.18	8.44	8.40	350	
EtFOSAm	0.34	0.50	13.11	13.10	32	R
8:2 FTS	0.76	0.96	8.06	8.02	11973	
9-CI-PF3ON	0.06	0.06	9.40	9.39	959	
PFNS	0.48	0.47	9.58	9.58	810	
PFUnDA	0.15	0.14	9.10	9.05	370	
NMeFOSAA	0.78	0.82	8.30	8.26	74293	
NEtFOSAA	0.71	0.68	8.59	8.55	270	
PFDS	0.36	0.32	10.23	10.19	1599	
PFDOA	0.14	0.15	9.76	9.72	270	
MeFOSE	N/A	N/A	12.51	12.45	25	
EtFOSE	0.00	0.00	12.98	12.92	32	
11-CI-PF3OUdS	0.02	0.03	10.69	10.66	460	
PFTrDA	0.15	0.16	10.42	10.37	263	
PFDoS	0.45	0.46	11.44	11.43	2989	
PFTDA	0.27	0.26	11.04	11.02	210	

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