

Item 7**Sunfish Lake Engineer's Report for December 10, 2024**

By: Justin Messner, PE
City Engineer

Date: December 3, 2024

The following Engineer's Report reflects the Engineering activities undertaken this past month.

1. Engineering Activities Undertaken in the Month of November

- A. PFAS Sampling Report – At the June Council meeting, the City Council approved the proposal from WSB's Water Resources and Fisheries Group to complete PFAS testing in Sunfish Lake, Horseshoe Lake, and Hornbeam Lake. In August, the samples were collected, and the data was sent off for testing. A copy of the PFAS sampling report is included as Attachment 7A.
- B. Staff met with the contractor at 11 Salem Lane to review the limits of public right-of-way on Windy Hill Road. Limits were marked in the field and will be permanently signed when the weather permits.

2. Public Works Activities Undertaken in the Month of November

- A. Staff have reviewed striping and signing option at the speed humps on Salem Church Road. We are currently seeking quotes to restripe and sign the speed humps. Restriping will take place in the spring when temperatures are above 50 degrees.

3. Building and Site Reviews in the Month of November

- A. None.

4. Anticipated Engineering/Public Works Activities for the Month of December

- A. Staff will work with the City's snow plowing contractor to ensure that roads remain safe for travel. If residents find areas on city streets that need additional attention, they should email the contractor at sunfishlakesnow@gmail.com and copy City Engineer Justin Messner at jmessner@wsbeng.com.

The above constitutes the Engineer's Report for the City of Sunfish Lake for December 10, 2024.

Respectfully submitted,



Justin Messner, PE
City Engineer



November 20, 2024

Mayor Dan O'Leary and City Council
City of Sunfish Lake
Sunfish Lake, MN 55077

Re: 2024 City of Sunfish Lake PFAS Study

Dear Mr. O'Leary:

WSB was contracted by the City of Sunfish Lake to provide information to the community on the concentration of Per- and Polyfluoroalkyl substances (PFAS). PFAS can be found in consumer industrial products dating back as far as 1940. This includes cleaning products, non-stick cookware and water-resistant fabrics. Due to the very slow breakdown of PFAS chemicals in the environment, they are often referred to as "forever chemicals." PFAS exposure has been linked to certain cancers, endocrine disruptions, and immune system suppression.

PFAS Sampling Methodologies

WSB completed PFAS sampling on August 8, 2024 in general accordance with the "2022 MPCA Guidance for Per- and Polyfluoroalkyl substances (PFAS): Sampling" and "Great Lakes Consortium for Fish Consumption Advisories- Best Practice for Perfluorooctane Sulfonate (PFOS) Guidelines".

Two water samples were collected as surface samples from each lake, one sample per half of lake. Water sample locations can be found in the **Figures** portion of this report. Fish were collected via electrofishing methods and edible portions of the fish were tested for PFAS. At Hornbeam Lake, two composite samples consisting of three bluegill sunfish each and one yellow perch were tested. At Sunfish Lake, two composite samples of three bluegill sunfish each and one largemouth bass were tested. At Horseshoe Lake, two composite samples of 3 black bullheads each and one largemouth bass were tested.

PFAS Sampling Results

The PFAS analytical testing results can be found in the **Figures**. The full Pace analytical reports are also attached.

Fish Sampling Results

- 96% percent of tested analytes were below the laboratory's method detection limit.
- Fish species, size structure, and Perfluorooctane sulfonic acid (PFOS) results can be found in **Table 1**.
- Level of PFOS in fish for safe meal frequency per The Great Lakes Consortium for Fish Consumption Advisories can be found in **Table 2**.

Table1

Lake	Hornbeam			Sunfish			Horseshoe		
Species	Bluegill Composite	Bluegill Composite	Yellow Perch	Bluegill Composite	Bluegill Composite	Largemouth Bass	Black Bullhead Composite	Black Bullhead Composite	Largemouth Bass
Length (inches)	4	4	11	5	5	15	5	4	8
PFOS (ug/kg)	3.2	3.5	4.3	3.6	3.4	8.0	0.3	1.0	3.5

Table 2

PFOS in Fish (ug/kg)	Meal Frequency
>10	Unrestricted
>10-20	2 meals/week
>20-50	1 meal/week
>50-200	1 meal/month
>200	DO NOT EAT

Water Sample Results

- 79% percent of tested analytes were below the laboratory's method detection limit.
- Currently there are no state-wide standards for PFAS for Minnesota waterbodies.
- Between the 3 lakes, Sunfish Lake had the highest concentration of PFOS, which was 1.0 ng/L. For reference, Minnesota Pollution Control Water sampling in 2018 at Bde Maka Ska had a mean PFOS water concentration of 12.0 ng/L and Lake Elmo had a mean water concentration of 44.3 ng/L in 2020.
- PFOS concentrations can be found in **Table 3**.

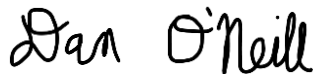
Table 3

Lake	Hornbeam 1	Hornbeam 2	Sunfish 1	Sunfish 2	Horseshoe 1	Horseshoe 2
PFOS (ng/L)	0.91 J	0.93 J	1.0 J	1.0	<0.18	<0.18

< - Analyte not detected greater than or equal to laboratory reporting limit

J – Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

Sincerely,
Dan O'Neill



WSB

Figures:

- Sample Locations
- Results Spreadsheet
- Pace Reports

WSB						
Sample ID	Hornbeam 1	Hornbeam 2	Sunfish 1	Sunfish 2	Horseshoe 1	Horseshoe 2
Sample Date	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024
PFAS Compound						
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	<0.78	<0.78	<0.81	<0.78	<0.80	<0.79
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	<0.49	<0.48	<0.50	<0.48	<0.50	<0.49
6:2-fluorotelomersulfonic acid (6:2-FTS)	<0.98	<0.98	<1.0	<0.98	<1.0	<0.99
8:2 fluorotelomer sulfonic acid (8:2 FTS)	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9CI-PF3ONS)	<0.83	<0.82	<0.85	<0.82	<0.85	<0.84
Hexafluoropropylene oxide dimer acid (HFPO-DA)	<0.78	<0.78	<0.81	<0.78	<0.80	<0.79
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	<0.26	<0.26	<0.27	<0.26	<0.26	<0.26
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.35	<0.35	<0.36	<0.35	<0.36	<0.35
N-ethyl perfluorooctanesulfonamidoethanol (NEtFOSE)	<3.2	<3.2	<3.3	<3.2	<3.3	<3.3
N-methyl perfluorooctanesulfonamide (NMeFOSA)	<0.27	<0.27	<0.28	<0.27	<0.27	<0.27
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.32	<0.32	<0.33	<0.32	<0.33	<0.32
Perfluorobutanoic acid (PFBA)	28.9	27.2	137.0	139.0	60.9	58.9
Perfluorobutanesulfonic acid (PFBS)	1.30	1.30	1.50	1.40	1.20	1.10
Perfluorodecanoic acid (PFDA)	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Perfluorodecanesulfonic acid (PFDS)	<0.27	<0.27	<0.27	<0.26	<0.27	<0.27
Perfluorododecanoic acid (PFDoA)	<0.22	<0.22	<0.23	<0.22	<0.23	<0.23
Perfluorododecanesulfonic acid (PFDoS)	<0.28	<0.28	<0.29	<0.28	<0.29	<0.28
Perfluoroheptanoic acid (PFHpA)	1.30	1.20	2.00	1.90	1.40	1.50
Perfluoroheptanesulfonic acid (PFHpS)	<0.24	<0.24	<0.25	<0.24	<0.25	<0.24
Perfluorohexanoic acid (PFHxA)	1.70	1.90	8.30	8.30	2.60	2.70
Perfluorohexanesulfonic acid (PFHxS)	0.47 J	0.45 J	1.10	1.10	0.36 J	0.30 J
Perfluorononanoic acid (PFNA)	0.42 J	0.38 J	0.61 J	0.58 J	0.31 J	0.34 J
Perfluorononanesulfonic acid (PFNS)	<0.24	<0.24	<0.25	<0.24	<0.25	<0.25
Perfluorooctanoic acid (PFOA)	2.60	2.60	7.00	6.90	2.90	2.70
Perfluorooctane sulfonic acid (PFOS)	0.91 J	0.93 J	1.0 J	1.0	<0.18	<0.18
Perfluoropentanoic acid (PFPeA)	2.60	2.40	9.30	9.80	5.00	4.50
Perfluoropentansulfonic acid (PFPeS)	<0.18	<0.18	<0.19	0.24 J	<0.19	<0.19
Perfluorotetradecanoic acid (PFTeDA)	<0.29	<0.29	<0.30	<0.28	<0.29	<0.29
Perfluorotridecanoic acid (PFTrDA)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Perfluoroundecanoic acid (PFUnA)	<0.25	<0.25	<0.26	<0.25	<0.26	<0.26

*All units in ng/L

< - Analyte not detected greater than or equal to laboratory reporting limit

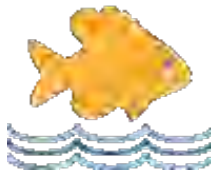
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

WSB									
Lake	Hornbeam Lake			Sunfish Lake			Horseshoe Lake		
Fish Specie	Bluegill Composite 1	Bluegill Composite 2	Yellow Perch	Bluegill Composite 1	Bluegill Composite 2	Largemouth Bass	Black Bullhead Composite 1	Black Bullhead Composite 1	Largemouth Bass
Sample Date	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024
PFAS Compound									
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	<0.57	<0.56	<0.57	<0.58	<0.57	<0.57	<0.57	<0.58	<0.56
3-Perfluoropropyl Propanoic acid (3:3 FTCA)	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	<0.30	<0.29	<0.29	<0.30	<0.30	<0.30	<0.30	<0.30	<0.29
5:3 Fluorotelomer carboxylic acid (5:3 FTCA)	<2.0	<1.9	<1.9	<2.0	<1.9	<1.9	<1.9	<2.0	<1.9
6:2-fluorotelomersulfonic acid (6:2-FTS)	<0.35	<0.34	<0.35	<0.36	<0.35	<0.35	<0.35	<0.36	<0.35
7:3 Fluorotelomer carboxylic acid (7:3 FTCA)	<2.6	<2.5	<2.5	<2.6	<2.6	<2.5	<2.5	<2.6	<2.5
8:2 fluorotelomer sulfonic acid (8:2 FTS)	<0.44	<0.42	<0.43	<0.44	<0.44	<0.44	<0.44	<0.44	<0.43
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9CI-PF3ONS)	<0.42	<0.41	<0.41	<0.42	<0.42	<0.42	<0.42	<0.42	<0.41
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	<0.38	<0.37	<0.37	<0.38	<0.38	<0.38	<0.38	<0.38	<0.37
Hexafluoropropylene oxide dimer acid (HFPO-DA)	<0.40	<0.39	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.39
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.066	<0.064	<0.065	<0.066	<0.065	<0.065	<0.065	<0.066	<0.064
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.18	<0.17	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.17
Perfluorobutanoic acid (PFBA)	1.1 J	<0.60	<0.61	<0.63	<0.62	<0.62	<0.62	<0.62	<0.61
Perfluorobutanesulfonic acid (PFBS)	<0.057	<0.055	<0.056	<0.057	<0.057	<0.057	<0.057	<0.057	<0.056
Perfluorodecanoic acid (PFDA)	0.38 J	0.39 J	1.1	0.43 J	0.45 J	0.96	0.13 J	0.22 J	1.6
Perfluorodecanesulfonic acid (PFDS)	<0.11	<0.11	<0.11	<0.11	<0.11	0.12 J	<0.11	<0.11	0.11 J
Perfluorododecanoic acid (PFDoA)	0.15 J	0.22 J	0.22 J	0.099 J	0.19 J	0.25 J	<0.078	0.18 J	0.16 J
Perfluoro 2-ethoxyethane sulfonic acid (PFEESA)	<0.15	<0.14	<0.14	<0.15	<0.15	<0.14	<0.14	<0.15	<0.14
Perfluoroheptanoic acid (PFHpA)	<0.10	<0.098	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.099
Perfluoroheptanesulfonic acid (PFHpS)	<0.082	<0.079	<0.081	<0.082	<0.082	<0.081	<0.081	<0.082	<0.080
Perfluorohexanoic acid (PFHxA)	<0.061	<0.059	<0.061	<0.062	<0.061	<0.061	<0.061	<0.062	<0.060
Perfluorohexanesulfonic acid (PFHxS)	<0.11	<0.10	<0.10	<0.11	<0.11	<0.11	<0.11	<0.11	<0.10
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.16	<0.15	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.16	<0.15	<0.15	<0.16	<0.16	<0.16	<0.16	<0.16	<0.15
Perfluorononanoic acid (PFNA)	<0.089	<0.086	<0.087	<0.089	<0.088	<0.088	<0.088	<0.089	0.56
Perfluorononanesulfonic acid (PFNS)	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Perfluorooctanoic acid (PFOA)	<0.065	<0.063	<0.064	<0.065	<0.065	<0.065	<0.065	<0.065	<0.064
Perfluorooctanesulfonic acid (PFOS)	3.2	3.5	4.3	3.6	3.4	8.0	0.23 J	1.0	3.5
Perfluorooctanesulfonamide (PFOSA)	<0.071	<0.069	<0.070	<0.072	<0.071	<0.071	<0.071	<0.072	<0.070
Perfluoropentanoic Acid (PFPeA)	<0.18	<0.17	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.17
Perfluoropentane sulfonic acid (PFPeS)	<0.098	<0.095	<0.097	<0.099	<0.098	<0.098	<0.098	<0.099	<0.096
Perfluoro-n-tetradecanoic acid (PFTeDA)	<0.074	0.11 J	<0.073	<0.075	<0.074	0.080 J	<0.074	<0.075	<0.073
Perfluorotridecanoic acid (PFTrDA)	<0.13	<0.12	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13
Perfluoroundecanoic acid (PFUnA)	0.34 J	0.30 J	0.76	0.37 J	0.53	0.85	0.14 J	0.20 J	0.92

*all units in ug/kg

< - Analyte not detected greater than or equal to laboratory reporting limit

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.



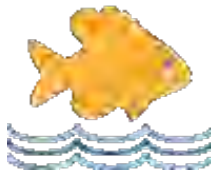
Sediment Sample Locations Hornbeam Lake

Sunfish Lake PFAS Study
City of Sunfish Lake



0 300
Feet
1 inch = 400 feet





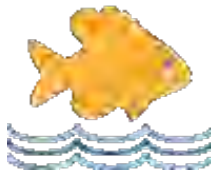
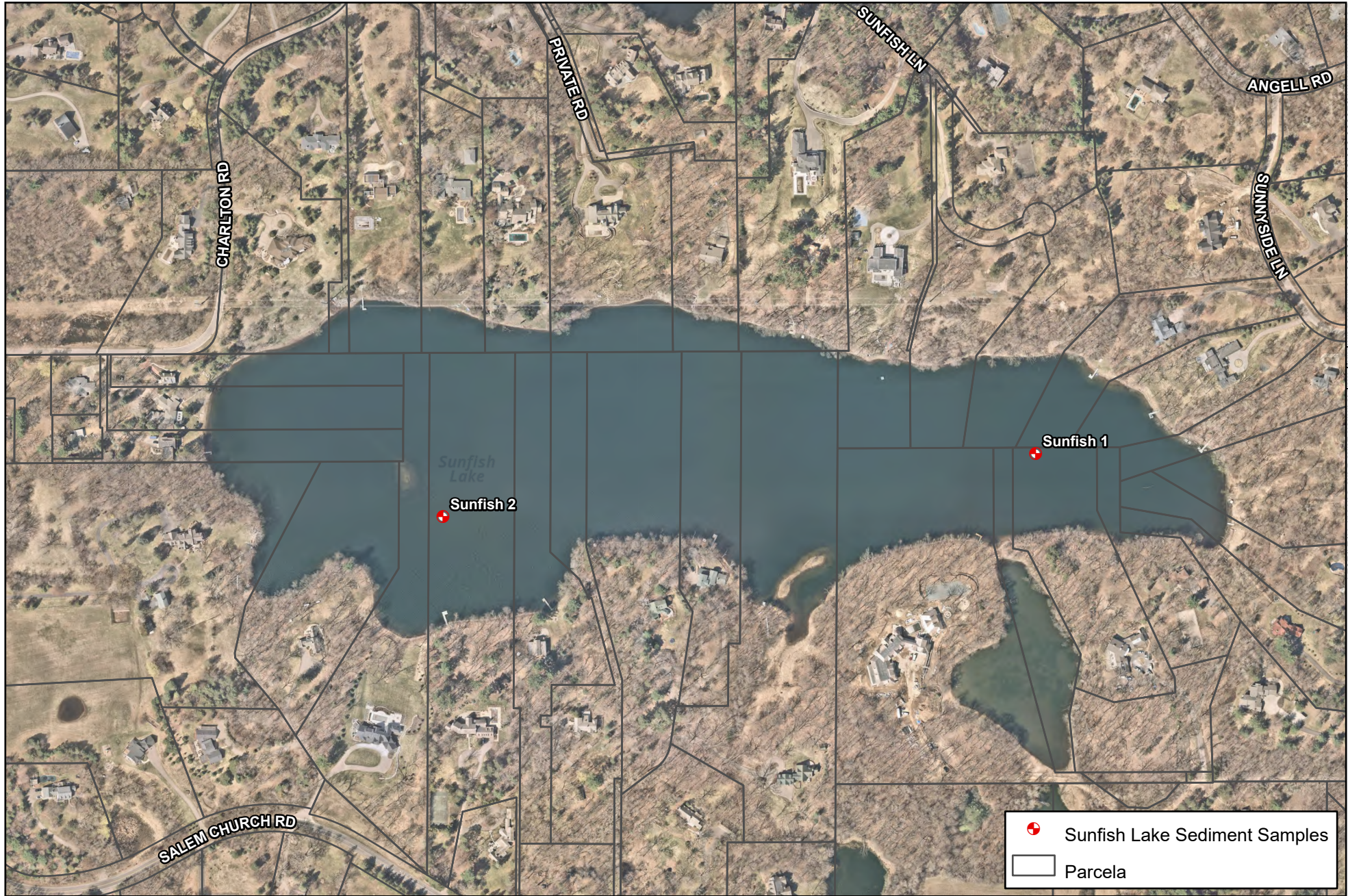
Sediment Sample Locations Horseshoe Lake

Sunfish Lake PFAS Study
City of Sunfish Lake



0 300
Feet
1 inch = 300 feet





Sediment Sample Locations Sunfish Lake

Sunfish Lake PFAS Study
City of Sunfish Lake



0 400
Feet
1 inch = 400 feet





October 22, 2024

Dan O'Neill
WSB & Associates
178 East 9th St
Suite 200
Saint Paul, MN 55101

RE: Project: 026096 Sunfish Lake PFAS Test
Pace Project No.: 10705049

Dear Dan O'Neill:

Enclosed are the analytical results for sample(s) received by the laboratory on August 21, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Annika Asp".

Annika Asp
annika.asp@pacelabs.com
(612)607-1700
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 026096 Sunfish Lake PFAS Test
Pace Project No.: 10705049

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

DoD Certification via A2LA #: 2926.01

EPA Region 8 Tribal Water Systems+Wyoming DW
Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

GMP+ Certification #: GMP050884

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

ISO/IEC 17025 Certification via A2LA #: 2926.01

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Approval: via MN 027-053-137

Minnesota Petrofund Registration #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification (A2LA) #: R-036

North Dakota Certification (MN) #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification (1700) #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification via A2LA #: 2926.01

USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10705049001	HB-2	Water	08/21/24 11:08	08/21/24 16:15
10705049002	HB-1	Water	08/21/24 10:49	08/21/24 16:15
10705049003	HS-2	Water	08/21/24 09:49	08/21/24 16:15
10705049004	SF-2	Water	08/21/24 14:03	08/21/24 16:15
10705049005	SF-1	Water	08/21/24 13:56	08/21/24 16:15
10705049006	HS-1	Water	08/21/24 10:01	08/21/24 16:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10705049001	HB-2	EPA 1633 DRAFT	MJL	54	PASI-M
10705049002	HB-1	EPA 1633 DRAFT	MJL	54	PASI-M
10705049003	HS-2	EPA 1633 DRAFT	MJL	54	PASI-M
10705049004	SF-2	EPA 1633 DRAFT	MJL	54	PASI-M
10705049005	SF-1	EPA 1633 DRAFT	MJL	54	PASI-M
10705049006	HS-1	EPA 1633 DRAFT	MJL	54	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: HB-2		Lab ID: 10705049001		Collected: 08/21/24 11:08		Received: 08/21/24 16:15		Matrix: Water	
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual	
EPA 1633 DRAFT Water	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT								
	Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.78	ng/L	4.0	1	09/10/24 06:15	09/11/24 22:59	763051-92-9		
4:2 FTS	<0.48	ng/L	4.0	1	09/10/24 06:15	09/11/24 22:59	757124-72-4		
6:2 FTS	<0.98	ng/L	4.0	1	09/10/24 06:15	09/11/24 22:59	27619-97-2		
8:2 FTS	<1.1	ng/L	4.0	1	09/10/24 06:15	09/11/24 22:59	39108-34-4		
9CI-PF3ONS	<0.82	ng/L	4.0	1	09/10/24 06:15	09/11/24 22:59	756426-58-1		
HFPO-DA	<0.78	ng/L	4.0	1	09/10/24 06:15	09/11/24 22:59	13252-13-6		
NEtFOSAA	<0.35	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	2991-50-6		
NEtFOSA	<0.26	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	4151-50-2		
NEtFOSE	<3.2	ng/L	10.0	1	09/10/24 06:15	09/11/24 22:59	1691-99-2		
NMeFOSAA	<0.32	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	2355-31-9		
NMeFOSA	<0.27	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	31506-32-8		
PFBS	1.3	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	375-73-5		
PFDA	<0.18	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	335-76-2		
PFHxA	1.9	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	307-24-4		
PFBA	27.2	ng/L	4.0	1	09/10/24 06:15	09/11/24 22:59	375-22-4		
PFDS	<0.27	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	335-77-3		
PFDoS	<0.28	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	79780-39-5		
PFHpS	<0.24	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	375-92-8		
PFNS	<0.24	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	68259-12-1		
PFPeA	2.4	ng/L	2.0	1	09/10/24 06:15	09/11/24 22:59	2706-90-3		
PFPeS	<0.18	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	2706-91-4		
PFDoA	<0.22	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	307-55-1		
PFHpA	1.2	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	375-85-9		
PFHxS	0.45J	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	355-46-4		
PFNA	0.38J	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	375-95-1		
PFOS	0.93J	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	1763-23-1		
PFOA	2.6	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	335-67-1		
PFTeDA	<0.29	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	376-06-7		
PFTrDA	<0.20	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	72629-94-8		
PFUnA	<0.25	ng/L	1.0	1	09/10/24 06:15	09/11/24 22:59	2058-94-8		
Surrogates									
13C2-PFDoA (S)	75	%.	10-130	1	09/10/24 06:15	09/11/24 22:59			
13C3HFPO-DA (S)	92	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
13C3-PFBS (S)	99	%.	40-135	1	09/10/24 06:15	09/11/24 22:59			
13C3-PFHxS (S)	101	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
13C4-PFBA (S)	16	%.	5-130	1	09/10/24 06:15	09/11/24 22:59			
13C4-PFHpA (S)	94	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
13C5-PFHxA (S)	95	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
13C5-PFPeA (S)	92	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
13C6-PFDA (S)	96	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
13C8-PFOA (S)	97	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
13C8-PFOS (S)	99	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
13C8-PFOSA (S)	90	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
13C9-PFNA (S)	95	%.	40-130	1	09/10/24 06:15	09/11/24 22:59			
d3-MeFOSAA (S)	88	%.	40-170	1	09/10/24 06:15	09/11/24 22:59			
d3-NMeFOSA (S)	88	%.	10-130	1	09/10/24 06:15	09/11/24 22:59			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: HB-2		Lab ID: 10705049001		Collected: 08/21/24 11:08		Received: 08/21/24 16:15		Matrix: Water	
Parameters		Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates									
d5-EtFOSAA (S)	94	%.	25-135	1	09/10/24 06:15	09/11/24 22:59			
d5-NEtFOSA (S)	87	%.	10-130	1	09/10/24 06:15	09/11/24 22:59			
d7-NMeFOSE (S)	71	%.	10-130	1	09/10/24 06:15	09/11/24 22:59			
d9-NEtFOSE (S)	73	%.	10-130	1	09/10/24 06:15	09/11/24 22:59			
13C2-PFTA (S)	41	%.	10-130	1	09/10/24 06:15	09/11/24 22:59			
13C7-PFUdA (S)	90	%.	30-130	1	09/10/24 06:15	09/11/24 22:59			
13C24:2FTS (S)	153	%.	40-200	1	09/10/24 06:15	09/11/24 22:59			
13C26:2FTS (S)	135	%.	40-200	1	09/10/24 06:15	09/11/24 22:59			
13C28:2FTS (S)	109	%.	40-300	1	09/10/24 06:15	09/11/24 22:59			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: HB-1		Lab ID: 10705049002		Collected: 08/21/24 10:49		Received: 08/21/24 16:15		Matrix: Water	
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual	
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
11CI-PF3OUdS	<0.78	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:15	763051-92-9		
4:2 FTS	<0.49	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:15	757124-72-4		
6:2 FTS	<0.98	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:15	27619-97-2		
8:2 FTS	<1.1	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:15	39108-34-4		
9CI-PF3ONS	<0.83	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:15	756426-58-1		
HFPO-DA	<0.78	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:15	13252-13-6		
NEtFOSAA	<0.35	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	2991-50-6		
NEtFOSA	<0.26	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	4151-50-2		
NEtFOSE	<3.2	ng/L	10.1	1	09/10/24 06:15	09/11/24 23:15	1691-99-2		
NMeFOSAA	<0.32	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	2355-31-9		
NMeFOSA	<0.27	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	31506-32-8		
PFBS	1.3	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	375-73-5		
PFDA	<0.18	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	335-76-2		
PFHxA	1.7	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	307-24-4		
PFBA	28.9	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:15	375-22-4		
PFDS	<0.27	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	335-77-3		
PFDoS	<0.28	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	79780-39-5		
PFHpS	<0.24	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	375-92-8		
PFNS	<0.24	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	68259-12-1		
PFPeA	2.6	ng/L	2.0	1	09/10/24 06:15	09/11/24 23:15	2706-90-3		
PFPeS	<0.18	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	2706-91-4		
PFDoA	<0.22	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	307-55-1		
PFHpA	1.3	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	375-85-9		
PFHxS	0.47J	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	355-46-4		
PFNA	0.42J	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	375-95-1		
PFOS	0.91J	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	1763-23-1		
PFOA	2.6	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	335-67-1		
PFTeDA	<0.29	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	376-06-7		
PFTrDA	<0.20	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	72629-94-8		
PFUnA	<0.25	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:15	2058-94-8		
Surrogates									
13C2-PFDoA (S)	71	%.	10-130	1	09/10/24 06:15	09/11/24 23:15			
13C3HFPO-DA (S)	90	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
13C3-PFBS (S)	93	%.	40-135	1	09/10/24 06:15	09/11/24 23:15			
13C3-PFHxS (S)	95	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
13C4-PFBA (S)	26	%.	5-130	1	09/10/24 06:15	09/11/24 23:15			
13C4-PFHpA (S)	93	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
13C5-PFHxA (S)	91	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
13C5-PFPeA (S)	92	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
13C6-PFDA (S)	91	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
13C8-PFOA (S)	91	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
13C8-PFOS (S)	93	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
13C8-PFOSA (S)	85	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
13C9-PFNA (S)	93	%.	40-130	1	09/10/24 06:15	09/11/24 23:15			
d3-MeFOSAA (S)	84	%.	40-170	1	09/10/24 06:15	09/11/24 23:15			
d3-NMeFOSA (S)	77	%.	10-130	1	09/10/24 06:15	09/11/24 23:15			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: HB-1		Lab ID: 10705049002		Collected: 08/21/24 10:49		Received: 08/21/24 16:15		Matrix: Water	
Parameters		Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates									
d5-EtFOSAA (S)	89	%.	25-135	1	09/10/24 06:15	09/11/24 23:15			
d5-NEtFOSA (S)	74	%.	10-130	1	09/10/24 06:15	09/11/24 23:15			
d7-NMeFOSE (S)	66	%.	10-130	1	09/10/24 06:15	09/11/24 23:15			
d9-NEtFOSE (S)	68	%.	10-130	1	09/10/24 06:15	09/11/24 23:15			
13C2-PFTA (S)	39	%.	10-130	1	09/10/24 06:15	09/11/24 23:15			
13C7-PFUdA (S)	89	%.	30-130	1	09/10/24 06:15	09/11/24 23:15			
13C24:2FTS (S)	143	%.	40-200	1	09/10/24 06:15	09/11/24 23:15			
13C26:2FTS (S)	128	%.	40-200	1	09/10/24 06:15	09/11/24 23:15			
13C28:2FTS (S)	105	%.	40-300	1	09/10/24 06:15	09/11/24 23:15			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: HS-2		Lab ID: 10705049003		Collected: 08/21/24 09:49		Received: 08/21/24 16:15		Matrix: Water	
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual	
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
11CI-PF3OUdS	<0.79	ng/L	4.1	1	09/10/24 06:15	09/11/24 23:31	763051-92-9		
4:2 FTS	<0.49	ng/L	4.1	1	09/10/24 06:15	09/11/24 23:31	757124-72-4		
6:2 FTS	<0.99	ng/L	4.1	1	09/10/24 06:15	09/11/24 23:31	27619-97-2		
8:2 FTS	<1.1	ng/L	4.1	1	09/10/24 06:15	09/11/24 23:31	39108-34-4		
9CI-PF3ONS	<0.84	ng/L	4.1	1	09/10/24 06:15	09/11/24 23:31	756426-58-1		
HFPO-DA	<0.79	ng/L	4.1	1	09/10/24 06:15	09/11/24 23:31	13252-13-6		
NEtFOSAA	<0.35	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	2991-50-6		
NEtFOSA	<0.26	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	4151-50-2		
NEtFOSE	<3.3	ng/L	10.2	1	09/10/24 06:15	09/11/24 23:31	1691-99-2		
NMeFOSAA	<0.32	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	2355-31-9		
NMeFOSA	<0.27	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	31506-32-8		
PFBS	1.1	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	375-73-5		
PFDA	<0.18	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	335-76-2		
PFHxA	2.7	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	307-24-4		
PFBA	58.9	ng/L	4.1	1	09/10/24 06:15	09/11/24 23:31	375-22-4		
PFDS	<0.27	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	335-77-3		
PFDoS	<0.28	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	79780-39-5		
PFHpS	<0.24	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	375-92-8		
PFNS	<0.25	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	68259-12-1		
PFPeA	4.5	ng/L	2.0	1	09/10/24 06:15	09/11/24 23:31	2706-90-3		
PFPeS	<0.19	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	2706-91-4		
PFDoA	<0.23	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	307-55-1		
PFHpA	1.5	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	375-85-9		
PFHxS	0.30J	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	355-46-4		
PFNA	0.34J	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	375-95-1		
PFOS	<0.18	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	1763-23-1		
PFOA	2.7	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	335-67-1		
PFTeDA	<0.29	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	376-06-7		
PFTrDA	<0.20	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	72629-94-8		
PFUnA	<0.26	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:31	2058-94-8		
Surrogates									
13C2-PFDoA (S)	65	%.	10-130	1	09/10/24 06:15	09/11/24 23:31			
13C3HFPO-DA (S)	89	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
13C3-PFBS (S)	99	%.	40-135	1	09/10/24 06:15	09/11/24 23:31			
13C3-PFHxS (S)	100	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
13C4-PFBA (S)	14	%.	5-130	1	09/10/24 06:15	09/11/24 23:31			
13C4-PFHpA (S)	90	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
13C5-PFHxA (S)	89	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
13C5-PFPeA (S)	86	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
13C6-PFDA (S)	91	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
13C8-PFOA (S)	96	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
13C8-PFOS (S)	98	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
13C8-PFOSA (S)	89	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
13C9-PFNA (S)	90	%.	40-130	1	09/10/24 06:15	09/11/24 23:31			
d3-MeFOSAA (S)	84	%.	40-170	1	09/10/24 06:15	09/11/24 23:31			
d3-NMeFOSA (S)	87	%.	10-130	1	09/10/24 06:15	09/11/24 23:31			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: HS-2		Lab ID: 10705049003		Collected: 08/21/24 09:49		Received: 08/21/24 16:15		Matrix: Water	
Parameters		Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates									
d5-EtFOSAA (S)	86	%.	25-135	1	09/10/24 06:15	09/11/24 23:31			
d5-NEtFOSA (S)	86	%.	10-130	1	09/10/24 06:15	09/11/24 23:31			
d7-NMeFOSE (S)	67	%.	10-130	1	09/10/24 06:15	09/11/24 23:31			
d9-NEtFOSE (S)	69	%.	10-130	1	09/10/24 06:15	09/11/24 23:31			
13C2-PFTA (S)	44	%.	10-130	1	09/10/24 06:15	09/11/24 23:31			
13C7-PFUdA (S)	83	%.	30-130	1	09/10/24 06:15	09/11/24 23:31			
13C24:2FTS (S)	131	%.	40-200	1	09/10/24 06:15	09/11/24 23:31			
13C26:2FTS (S)	121	%.	40-200	1	09/10/24 06:15	09/11/24 23:31			
13C28:2FTS (S)	103	%.	40-300	1	09/10/24 06:15	09/11/24 23:31			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: SF-2		Lab ID: 10705049004		Collected: 08/21/24 14:03		Received: 08/21/24 16:15		Matrix: Water	
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual	
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
11CI-PF3OUdS	<0.78	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:46	763051-92-9		
4:2 FTS	<0.48	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:46	757124-72-4		
6:2 FTS	<0.98	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:46	27619-97-2		
8:2 FTS	<1.0	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:46	39108-34-4		
9CI-PF3ONS	<0.82	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:46	756426-58-1		
HFPO-DA	<0.78	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:46	13252-13-6		
NEtFOSAA	<0.35	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	2991-50-6		
NEtFOSA	<0.26	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	4151-50-2		
NEtFOSE	<3.2	ng/L	10	1	09/10/24 06:15	09/11/24 23:46	1691-99-2		
NMeFOSAA	<0.32	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	2355-31-9		
NMeFOSA	<0.27	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	31506-32-8		
PFBS	1.4	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	375-73-5		
PFDA	<0.18	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	335-76-2		
PFHxA	8.3	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	307-24-4		
PFBA	139	ng/L	4.0	1	09/10/24 06:15	09/11/24 23:46	375-22-4		
PFDS	<0.26	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	335-77-3		
PFDoS	<0.28	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	79780-39-5		
PFHpS	<0.24	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	375-92-8		
PFNS	<0.24	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	68259-12-1		
PFPeA	9.8	ng/L	2.0	1	09/10/24 06:15	09/11/24 23:46	2706-90-3		
PFPeS	0.24J	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	2706-91-4		
PFDoA	<0.22	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	307-55-1		
PFHpA	1.9	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	375-85-9		
PFHxS	1.1	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	355-46-4		
PFNA	0.58J	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	375-95-1		
PFOS	1.0	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	1763-23-1		
PFOA	6.9	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	335-67-1		
PFTeDA	<0.28	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	376-06-7		
PFTrDA	<0.20	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	72629-94-8		
PFUnA	<0.25	ng/L	1.0	1	09/10/24 06:15	09/11/24 23:46	2058-94-8		
Surrogates									
13C2-PFDoA (S)	66	%.	10-130	1	09/10/24 06:15	09/11/24 23:46			
13C3HFPO-DA (S)	91	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
13C3-PFBS (S)	98	%.	40-135	1	09/10/24 06:15	09/11/24 23:46			
13C3-PFHxS (S)	97	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
13C4-PFBA (S)	54	%.	5-130	1	09/10/24 06:15	09/11/24 23:46			
13C4-PFHpA (S)	92	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
13C5-PFHxA (S)	92	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
13C5-PFPeA (S)	93	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
13C6-PFDA (S)	92	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
13C8-PFOA (S)	93	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
13C8-PFOS (S)	97	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
13C8-PFOSA (S)	88	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
13C9-PFNA (S)	92	%.	40-130	1	09/10/24 06:15	09/11/24 23:46			
d3-MeFOSAA (S)	85	%.	40-170	1	09/10/24 06:15	09/11/24 23:46			
d3-NMeFOSA (S)	75	%.	10-130	1	09/10/24 06:15	09/11/24 23:46			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: SF-2		Lab ID: 10705049004		Collected: 08/21/24 14:03		Received: 08/21/24 16:15		Matrix: Water	
Parameters		Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates									
d5-EtFOSAA (S)	87	%.	25-135	1	09/10/24 06:15	09/11/24 23:46			
d5-NEtFOSA (S)	72	%.	10-130	1	09/10/24 06:15	09/11/24 23:46			
d7-NMeFOSE (S)	64	%.	10-130	1	09/10/24 06:15	09/11/24 23:46			
d9-NEtFOSE (S)	67	%.	10-130	1	09/10/24 06:15	09/11/24 23:46			
13C2-PFTA (S)	38	%.	10-130	1	09/10/24 06:15	09/11/24 23:46			
13C7-PFUdA (S)	85	%.	30-130	1	09/10/24 06:15	09/11/24 23:46			
13C24:2FTS (S)	134	%.	40-200	1	09/10/24 06:15	09/11/24 23:46			
13C26:2FTS (S)	120	%.	40-200	1	09/10/24 06:15	09/11/24 23:46			
13C28:2FTS (S)	104	%.	40-300	1	09/10/24 06:15	09/11/24 23:46			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: SF-1		Lab ID: 10705049005		Collected: 08/21/24 13:56		Received: 08/21/24 16:15		Matrix: Water	
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual	
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
11CI-PF3OUdS	<0.81	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:02	763051-92-9		
4:2 FTS	<0.50	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:02	757124-72-4		
6:2 FTS	<1.0	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:02	27619-97-2		
8:2 FTS	<1.1	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:02	39108-34-4		
9CI-PF3ONS	<0.85	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:02	756426-58-1		
HFPO-DA	<0.81	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:02	13252-13-6		
NEtFOSAA	<0.36	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	2991-50-6		
NEtFOSA	<0.27	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	4151-50-2		
NEtFOSE	<3.3	ng/L	10.4	1	09/10/24 06:15	09/12/24 00:02	1691-99-2		
NMeFOSAA	<0.33	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	2355-31-9		
NMeFOSA	<0.28	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	31506-32-8		
PFBS	1.5	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	375-73-5		
PFDA	<0.18	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	335-76-2		
PFHxA	8.3	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	307-24-4		
PFBA	137	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:02	375-22-4		
PFDS	<0.27	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	335-77-3		
PFDoS	<0.29	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	79780-39-5		
PFHpS	<0.25	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	375-92-8		
PFNS	<0.25	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	68259-12-1		
PFPeA	9.3	ng/L	2.1	1	09/10/24 06:15	09/12/24 00:02	2706-90-3		
PFPeS	<0.19	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	2706-91-4		
PFDoA	<0.23	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	307-55-1		
PFHpA	2.0	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	375-85-9		
PFHxS	1.1	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	355-46-4		
PFNA	0.61J	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	375-95-1		
PFOS	1.0J	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	1763-23-1		
PFOA	7.0	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	335-67-1		
PFTeDA	<0.30	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	376-06-7		
PFTrDA	<0.20	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	72629-94-8		
PFUnA	<0.26	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:02	2058-94-8		
Surrogates									
13C2-PFDoA (S)	74	%.	10-130	1	09/10/24 06:15	09/12/24 00:02			
13C3HFPO-DA (S)	92	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
13C3-PFBS (S)	97	%.	40-135	1	09/10/24 06:15	09/12/24 00:02			
13C3-PFHxS (S)	98	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
13C4-PFBA (S)	60	%.	5-130	1	09/10/24 06:15	09/12/24 00:02			
13C4-PFHpA (S)	93	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
13C5-PFHxA (S)	92	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
13C5-PFPeA (S)	94	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
13C6-PFDA (S)	89	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
13C8-PFOA (S)	91	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
13C8-PFOS (S)	95	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
13C8-PFOSA (S)	88	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
13C9-PFNA (S)	91	%.	40-130	1	09/10/24 06:15	09/12/24 00:02			
d3-MeFOSAA (S)	87	%.	40-170	1	09/10/24 06:15	09/12/24 00:02			
d3-NMeFOSA (S)	78	%.	10-130	1	09/10/24 06:15	09/12/24 00:02			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: SF-1		Lab ID: 10705049005		Collected: 08/21/24 13:56		Received: 08/21/24 16:15		Matrix: Water	
Parameters		Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates									
d5-EtFOSAA (S)	92	%.	25-135	1	09/10/24 06:15	09/12/24 00:02			
d5-NEtFOSA (S)	74	%.	10-130	1	09/10/24 06:15	09/12/24 00:02			
d7-NMeFOSE (S)	71	%.	10-130	1	09/10/24 06:15	09/12/24 00:02			
d9-NEtFOSE (S)	74	%.	10-130	1	09/10/24 06:15	09/12/24 00:02			
13C2-PFTA (S)	50	%.	10-130	1	09/10/24 06:15	09/12/24 00:02			
13C7-PFUDa (S)	84	%.	30-130	1	09/10/24 06:15	09/12/24 00:02			
13C24:2FTS (S)	135	%.	40-200	1	09/10/24 06:15	09/12/24 00:02			
13C26:2FTS (S)	120	%.	40-200	1	09/10/24 06:15	09/12/24 00:02			
13C28:2FTS (S)	105	%.	40-300	1	09/10/24 06:15	09/12/24 00:02			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: HS-1		Lab ID: 10705049006		Collected: 08/21/24 10:01		Received: 08/21/24 16:15		Matrix: Water	
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual	
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
11CI-PF3OUdS	<0.80	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:17	763051-92-9		
4:2 FTS	<0.50	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:17	757124-72-4		
6:2 FTS	<1.0	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:17	27619-97-2		
8:2 FTS	<1.1	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:17	39108-34-4		
9CI-PF3ONS	<0.85	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:17	756426-58-1		
HFPO-DA	<0.80	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:17	13252-13-6		
NEtFOSAA	<0.36	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	2991-50-6		
NEtFOSA	<0.26	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	4151-50-2		
NEtFOSE	<3.3	ng/L	10.3	1	09/10/24 06:15	09/12/24 00:17	1691-99-2		
NMeFOSAA	<0.33	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	2355-31-9		
NMeFOSA	<0.27	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	31506-32-8		
PFBS	1.2	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	375-73-5		
PFDA	<0.18	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	335-76-2		
PFHxA	2.6	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	307-24-4		
PFBA	60.9	ng/L	4.1	1	09/10/24 06:15	09/12/24 00:17	375-22-4		
PFDS	<0.27	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	335-77-3		
PFDoS	<0.29	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	79780-39-5		
PFHpS	<0.25	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	375-92-8		
PFNS	<0.25	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	68259-12-1		
PFPeA	5.0	ng/L	2.1	1	09/10/24 06:15	09/12/24 00:17	2706-90-3		
PFPeS	<0.19	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	2706-91-4		
PFDoA	<0.23	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	307-55-1		
PFHpA	1.4	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	375-85-9		
PFHxS	0.36J	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	355-46-4		
PFNA	0.31J	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	375-95-1		
PFOS	<0.18	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	1763-23-1		
PFOA	2.9	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	335-67-1		
PFTeDA	<0.29	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	376-06-7		
PFTrDA	<0.20	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	72629-94-8		
PFUnA	<0.26	ng/L	1.0	1	09/10/24 06:15	09/12/24 00:17	2058-94-8		
Surrogates									
13C2-PFDoA (S)	72	%.	10-130	1	09/10/24 06:15	09/12/24 00:17			
13C3HFPO-DA (S)	89	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
13C3-PFBS (S)	94	%.	40-135	1	09/10/24 06:15	09/12/24 00:17			
13C3-PFHxS (S)	93	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
13C4-PFBA (S)	29	%.	5-130	1	09/10/24 06:15	09/12/24 00:17			
13C4-PFHpA (S)	88	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
13C5-PFHxA (S)	89	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
13C5-PFPeA (S)	89	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
13C6-PFDA (S)	87	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
13C8-PFOA (S)	86	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
13C8-PFOS (S)	91	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
13C8-PFOSA (S)	83	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
13C9-PFNA (S)	89	%.	40-130	1	09/10/24 06:15	09/12/24 00:17			
d3-MeFOSAA (S)	81	%.	40-170	1	09/10/24 06:15	09/12/24 00:17			
d3-NMeFOSA (S)	77	%.	10-130	1	09/10/24 06:15	09/12/24 00:17			

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ANALYTICAL RESULTS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

Sample: HS-1		Lab ID: 10705049006		Collected: 08/21/24 10:01		Received: 08/21/24 16:15		Matrix: Water	
Parameters		Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Water		Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates									
d5-EtFOSAA (S)	85	%.	25-135	1	09/10/24 06:15	09/12/24 00:17			
d5-NEtFOSA (S)	76	%.	10-130	1	09/10/24 06:15	09/12/24 00:17			
d7-NMeFOSE (S)	71	%.	10-130	1	09/10/24 06:15	09/12/24 00:17			
d9-NEtFOSE (S)	72	%.	10-130	1	09/10/24 06:15	09/12/24 00:17			
13C2-PFTA (S)	51	%.	10-130	1	09/10/24 06:15	09/12/24 00:17			
13C7-PFUdA (S)	84	%.	30-130	1	09/10/24 06:15	09/12/24 00:17			
13C24:2FTS (S)	125	%.	40-200	1	09/10/24 06:15	09/12/24 00:17			
13C26:2FTS (S)	113	%.	40-200	1	09/10/24 06:15	09/12/24 00:17			
13C28:2FTS (S)	95	%.	40-300	1	09/10/24 06:15	09/12/24 00:17			

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QUALITY CONTROL DATA

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

QC Batch: 966675 Analysis Method: EPA 1633 DRAFT
QC Batch Method: EPA 1633 DRAFT Analysis Description: 1633 W
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10705049001, 10705049002, 10705049003, 10705049004, 10705049005, 10705049006

METHOD BLANK: 5051546

Matrix: Water

Associated Lab Samples: 10705049001, 10705049002, 10705049003, 10705049004, 10705049005, 10705049006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11CI-PF3OUdS	ng/L	<0.76	3.9	09/11/24 21:25	
4:2 FTS	ng/L	<0.47	3.9	09/11/24 21:25	
6:2 FTS	ng/L	<0.96	3.9	09/11/24 21:25	
8:2 FTS	ng/L	<1.0	3.9	09/11/24 21:25	
9CI-PF3ONS	ng/L	<0.81	3.9	09/11/24 21:25	
HFPO-DA	ng/L	<0.76	3.9	09/11/24 21:25	
NEtFOSA	ng/L	<0.25	0.98	09/11/24 21:25	
NEtFOSAA	ng/L	<0.34	0.98	09/11/24 21:25	
NEtFOSE	ng/L	<3.1	9.8	09/11/24 21:25	
NMeFOSA	ng/L	<0.26	0.98	09/11/24 21:25	
NMeFOSAA	ng/L	<0.31	0.98	09/11/24 21:25	
PFBA	ng/L	<0.60	3.9	09/11/24 21:25	
PFBS	ng/L	<0.31	0.98	09/11/24 21:25	
PFDA	ng/L	<0.17	0.98	09/11/24 21:25	
PFDoA	ng/L	<0.22	0.98	09/11/24 21:25	
PFDoS	ng/L	<0.27	0.98	09/11/24 21:25	
PFDS	ng/L	<0.26	0.98	09/11/24 21:25	
PFHpA	ng/L	<0.21	0.98	09/11/24 21:25	
PFHpS	ng/L	<0.23	0.98	09/11/24 21:25	
PFHxA	ng/L	<0.15	0.98	09/11/24 21:25	
PFHxS	ng/L	<0.25	0.98	09/11/24 21:25	
PFNA	ng/L	<0.23	0.98	09/11/24 21:25	
PFNS	ng/L	<0.24	0.98	09/11/24 21:25	
PFOA	ng/L	<0.34	0.98	09/11/24 21:25	
PFOS	ng/L	<0.17	0.98	09/11/24 21:25	
PFPeA	ng/L	<0.29	2.0	09/11/24 21:25	
PFPeS	ng/L	<0.18	0.98	09/11/24 21:25	
PFTeDA	ng/L	<0.28	0.98	09/11/24 21:25	
PFTrDA	ng/L	<0.19	0.98	09/11/24 21:25	
PFUnA	ng/L	<0.25	0.98	09/11/24 21:25	
13C2-PFDoA (S)	%	76	10-130	09/11/24 21:25	
13C2-PFTA (S)	%	77	10-130	09/11/24 21:25	
13C24:2FTS (S)	%	104	40-200	09/11/24 21:25	
13C26:2FTS (S)	%	102	40-200	09/11/24 21:25	
13C28:2FTS (S)	%	83	40-300	09/11/24 21:25	
13C3-PFBS (S)	%	91	40-135	09/11/24 21:25	
13C3-PFHxS (S)	%	92	40-130	09/11/24 21:25	
13C3HFPO-DA (S)	%	88	40-130	09/11/24 21:25	
13C4-PFBA (S)	%	86	5-130	09/11/24 21:25	
13C4-PFHpA (S)	%	87	40-130	09/11/24 21:25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

METHOD BLANK: 5051546

Matrix: Water

Associated Lab Samples: 10705049001, 10705049002, 10705049003, 10705049004, 10705049005, 10705049006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C5-PFHxA (S)	%	86	40-130	09/11/24 21:25	
13C5-PFPeA (S)	%	89	40-130	09/11/24 21:25	
13C6-PFDA (S)	%	85	40-130	09/11/24 21:25	
13C7-PFUDa (S)	%	82	30-130	09/11/24 21:25	
13C8-PFOA (S)	%	89	40-130	09/11/24 21:25	
13C8-PFOS (S)	%	85	40-130	09/11/24 21:25	
13C8-PFOSA (S)	%	80	40-130	09/11/24 21:25	
13C9-PFNA (S)	%	83	40-130	09/11/24 21:25	
d3-MeFOSAA (S)	%	80	40-170	09/11/24 21:25	
d3-NMeFOSA (S)	%	69	10-130	09/11/24 21:25	
d5-EtFOSAA (S)	%	84	25-135	09/11/24 21:25	
d5-NEtFOSA (S)	%	76	10-130	09/11/24 21:25	
d7-NMeFOSE (S)	%	82	10-130	09/11/24 21:25	
d9-NEtFOSE (S)	%	85	10-130	09/11/24 21:25	

LABORATORY CONTROL SAMPLE & LCSD: 5051547

5051548

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11CI-PF3OUdS	ng/L	88.7	78.2	82.1	88	92	55-160	5	30	
4:2 FTS	ng/L	88.1	82.2	83.2	93	93	70-145	1	30	
6:2 FTS	ng/L	89.3	88.0	90.6	99	100	65-155	3	30	
8:2 FTS	ng/L	90.5	91.6	92.9	101	102	60-150	1	30	
9CI-PF3ONS	ng/L	88.1	84.9	87.6	96	98	70-155	3	30	
HFPO-DA	ng/L	94	88.1	93.3	94	98	70-140	6	30	
NEtFOSA	ng/L	23.5	18.8	19.7	80	83	65-145	4	30	
NEtFOSAA	ng/L	23.5	19.8	20.6	84	87	70-145	4	30	
NEtFOSE	ng/L	235	220	220	93	93	70-135	0	30	
NMeFOSA	ng/L	23.5	19.8	20.1	84	84	60-150	2	30	
NMeFOSAA	ng/L	23.5	21.9	20.9	93	88	50-140	4	30	
PFBA	ng/L	94	84.4	85.7	90	90	70-140	2	30	
PFBS	ng/L	20.9	18.5	18.4	89	87	60-145	0	30	
PFDA	ng/L	23.5	21.3	21.4	90	90	70-140	1	30	
PFDaA	ng/L	23.5	22.0	21.9	94	92	70-140	1	30	
PFDoS	ng/L	22.8	18.3	18.5	80	80	50-145	1	30	
PFDS	ng/L	22.7	18.8	18.5	83	81	60-145	2	30	
PFHpA	ng/L	23.5	21.2	22.4	90	94	70-150	5	30	
PFHpS	ng/L	22.4	19.3	19.9	86	88	70-150	3	30	
PFHxA	ng/L	23.5	21.7	21.9	92	92	70-145	1	30	
PFHxS	ng/L	21.5	18.0	18.7	84	86	65-145	4	30	
PFNA	ng/L	23.5	20.6	20.9	88	88	70-150	1	30	
PFNS	ng/L	22.6	19.7	19.8	87	86	65-145	0	30	
PFOA	ng/L	23.5	21.3	21.7	91	91	70-150	2	30	
PFOS	ng/L	21.8	19.2	19.0	88	86	55-150	1	30	
PFPeA	ng/L	47	42.9	43.6	91	92	65-135	2	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

LABORATORY CONTROL SAMPLE & LCSD: 5051547

		5051548								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PFPeS	ng/L	22.1	19.8	20.5	90	92	65-140	3	30	
PFTeDA	ng/L	23.5	21.8	21.9	93	92	60-140	0	30	
PFTTrDA	ng/L	23.5	21.7	21.8	92	92	65-140	0	30	
PFUnA	ng/L	23.5	21.2	21.3	90	90	70-145	1	30	
13C2-PFDoA (S)	%				80	83	10-130			
13C2-PFTA (S)	%				81	84	10-130			
13C24:2FTS (S)	%				102	100	40-200			
13C26:2FTS (S)	%				99	97	40-200			
13C28:2FTS (S)	%				88	90	40-300			
13C3-PFBS (S)	%				94	94	40-135			
13C3-PFHxS (S)	%				95	92	40-130			
13C3HFPO-DA (S)	%				89	84	40-130			
13C4-PFBA (S)	%				91	90	5-130			
13C4-PFHpA (S)	%				91	87	40-130			
13C5-PFHxA (S)	%				90	87	40-130			
13C5-PFPeA (S)	%				91	89	40-130			
13C6-PFDA (S)	%				90	91	40-130			
13C7-PFUDa (S)	%				88	89	30-130			
13C8-PFOA (S)	%				90	87	40-130			
13C8-PFOS (S)	%				93	93	40-130			
13C8-PFOSA (S)	%				85	80	40-130			
13C9-PFNA (S)	%				90	87	40-130			
d3-MeFOSAA (S)	%				86	86	40-170			
d3-NMeFOSA (S)	%				78	71	10-130			
d5-EtFOSAA (S)	%				90	88	25-135			
d5-NEtFOSA (S)	%				85	76	10-130			
d7-NMeFOSE (S)	%				90	81	10-130			
d9-NEtFOSE (S)	%				93	84	10-130			

LABORATORY CONTROL SAMPLE: 5051549

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ng/L	7.4	5.9	80	55-160	
4:2 FTS	ng/L	7.3	6.1	83	70-145	
6:2 FTS	ng/L	7.4	6.5	87	65-155	
8:2 FTS	ng/L	7.5	6.9	91	60-150	
9Cl-PF3ONS	ng/L	7.3	6.5	88	70-155	
HFPO-DA	ng/L	7.8	6.7	85	70-140	
NEtFOSA	ng/L	2	1.5	78	65-145	
NEtFOSAA	ng/L	2	1.6	82	70-145	
NEtFOSE	ng/L	19.6	16.5	84	70-135	
NMeFOSA	ng/L	2	1.5	77	60-150	
NMeFOSAA	ng/L	2	1.6	84	50-140	
PFBA	ng/L	7.8	6.7	86	70-140	
PFBS	ng/L	1.7	1.6	92	60-145	

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QUALITY CONTROL DATA

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

LABORATORY CONTROL SAMPLE: 5051549

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PFDA	ng/L	2	1.5	79	70-140	
PFDaA	ng/L	2	1.6	82	70-140	
PFDoS	ng/L	1.9	1.4	72	50-145	
PFDS	ng/L	1.9	1.5	77	60-145	
PFHpA	ng/L	2	1.6	84	70-150	
PFHpS	ng/L	1.9	1.4	75	70-150	
PFHxA	ng/L	2	1.7	86	70-145	
PFHxS	ng/L	1.8	1.5	85	65-145	
PFNA	ng/L	2	1.6	81	70-150	
PFNS	ng/L	1.9	1.4	76	65-145	
PFOA	ng/L	2	1.6	83	70-150	
PFOS	ng/L	1.8	1.6	90	55-150	
PFPeA	ng/L	3.9	3.3	83	65-135	
PFPeS	ng/L	1.8	1.6	87	65-140	
PFTeDA	ng/L	2	1.6	81	60-140	
PFTrDA	ng/L	2	1.6	81	65-140	
PFUnA	ng/L	2	1.5	78	70-145	
13C2-PFDaA (S)	%			83	10-130	
13C2-PFTA (S)	%			84	10-130	
13C24:2FTS (S)	%			116	40-200	
13C26:2FTS (S)	%			114	40-200	
13C28:2FTS (S)	%			100	40-300	
13C3-PFBS (S)	%			98	40-135	
13C3-PFHxS (S)	%			99	40-130	
13C3HFPO-DA (S)	%			88	40-130	
13C4-PFBA (S)	%			89	5-130	
13C4-PFHpA (S)	%			92	40-130	
13C5-PFHxA (S)	%			90	40-130	
13C5-PFPeA (S)	%			92	40-130	
13C6-PFDA (S)	%			93	40-130	
13C7-PFUdA (S)	%			88	30-130	
13C8-PFOA (S)	%			93	40-130	
13C8-PFOS (S)	%			94	40-130	
13C8-PFOSA (S)	%			80	40-130	
13C9-PFNA (S)	%			90	40-130	
d3-MeFOSAA (S)	%			84	40-170	
d3-NMeFOSA (S)	%			64	10-130	
d5-EtFOSAA (S)	%			88	25-135	
d5-NEtFOSA (S)	%			68	10-130	
d7-NMeFOSE (S)	%			76	10-130	
d9-NEtFOSE (S)	%			78	10-130	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 026096 Sunfish Lake PFAS Test

Pace Project No.: 10705049

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 10705049

[1] Samples were received outside of the recommended temperature range of 0-6 degrees Celsius. The samples were received from the field on ice.

REPORT OF LABORATORY ANALYSIS

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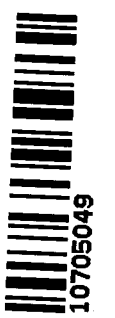
QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 026096 Sunfish Lake PFAS Test
Pace Project No.: 10705049

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10705049001	HB-2	EPA 1633 DRAFT	966675	EPA 1633 DRAFT	967875
10705049002	HB-1	EPA 1633 DRAFT	966675	EPA 1633 DRAFT	967875
10705049003	HS-2	EPA 1633 DRAFT	966675	EPA 1633 DRAFT	967875
10705049004	SF-2	EPA 1633 DRAFT	966675	EPA 1633 DRAFT	967875
10705049005	SF-1	EPA 1633 DRAFT	966675	EPA 1633 DRAFT	967875
10705049006	HS-1	EPA 1633 DRAFT	966675	EPA 1633 DRAFT	967875

REPORT OF LABORATORY ANALYSIS

WO#: 10705049



Chain-of-Custody Analytical Request Document

Company Name: WSB
Street Address:
178 9th St E, STE 200
St. Paul MN, 55101
Customer Project #: 026096
Project Name:
Sunfish Lake PFAS Testing 2024
Site Collection Info/Facility ID (as applicable):

Contact/Report To: Dan O'Neill
Phone #: 612-400-5382
E-Mail: donell@wsbeng.com
Cc: E-Mail: thavranek@wsbeng.com
Invoice to: wsbaccounting@wsbeng.com
Invoice E-Mail:
wsbaccounting@wsbeng.com
Purchase Order # (if applicable):
Quote #:

Time Zone Collected: [] AK [] MT [] PT [] CT [] ET
Data Deliverables:
[] Level II [] Level III [] Level IV
[] EQUIS
[] Other
Rush (Pre-approval required):
[] Same Day [] 1 Day [] 2 Day [] 3 Day Other
Date Results Requested:
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Biossary (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Composite Start		Collected or Composite End		# Cont.	Residual Observe	
		Date	Time	Date	Time		Result	Units
HB-2	SW G	8-21-24	11:08	8-21-24	11:08	1		
HB-1	SW G	8-21-24	10:49	8-21-24	10:49	1		
HS-2	SW G	8-21-24	9:49	8-21-24	9:49	1		
SF-2	SW G	8-21-24	14:03	8-21-24	14:03	1		
SF-1	SW G	8-21-24	13:56	8-21-24	13:56	1		
HS-1	SW G	8-21-24	10:01	8-21-24	10:01	1		

Additional Instructions from Pace*:
Collected By: Dan O'Neill
Printed Name: Dan O'Neill
Signature: [Signature]
Date/Time: 8-21-24/10:15
Relinquished by/Company: (Signature) Dan O'Neill / WSB
Date/Time: 8-21-24/10:15
Relinquished by/Company: (Signature)
Date/Time:
Relinquished by/Company: (Signature)
Date/Time:
Relinquished by/Company: (Signature)
Date/Time:



Specify Container Size **
Identify Container Preservative Type***
Analysis Requested

Container Size: (1) 1L (2) 500mL (3) 250mL (4) 125mL (5) 100mL (6) 40mL vial (7) EnCore, (8) TerraCore, (9) 90mL (10) Other
*** Preservative Types: (1) None (2) HNO3 (3) H2SO4 (4) HCl (5) NaOH (6) Zn Acetate (7) NaHSO4 (8) Sod. Thiosulfate (9) Ascorbic Acid (10) MeOH (11) Other

Lab Use Only		Sample Comment	
Proj. Mgr.		001	
AcctNum / Client ID:		002	
Table #:		003	
Profile / Template:		004	
Prodlog / Bottle Ord. ID:		005	
Preservation non-conformance identified for sample:		006	

Customer Remarks / Special Conditions / Possible Hazards:
Coolers: 1 Thermometer ID: 13 Correction Factor (°C): -0.2 Obs. Temp. (°C): 14.5 On Ice: wet
Tracking Number: 812124 1615
Delivered by: [] In-Person [] Courier [] FedEx [] UPS [] Other

Page: of
ENV-FRM-CORQ-0019_v02_110123 ©

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: WSB PROJECT #: _____

COURIER: ☒ Client ☐ Commercial ☐ FedEx ☐ Pace
☐ Speedee ☐ UPS ☐ USPS

TRACKING NUMBER: _____ ☐ See Exceptions form ENV-FRM-MIN4-0142

WO#: 10705049

PM: AKA Due Date: 09/20/24

CLIENT: WSB

Custody Seal on Cooler/Box Present: ☐ YES ☒ NO Seals Intact: ☐ YES ☒ NO Biological Issue Frozen: ☐ YES ☐ NO ☒ N/A

Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☒ None ☐ Other Temp Blank: ☐ YES ☒ NO Type of Ice: ☐ Blue ☐ Dry ☒ Wet
☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☒ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235)
☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☒ NO Were All Container Temps taken: ☐ YES ☐ NO ☒ N/A

Correction Factor: -0.2 Cooler Temp Read w/Temp Blank: _____ °C Average Corrected Temp (no Temp Blank Only): 14.5 °C
Cooler Temp Corrected w/Temp Blank: _____ °C

NOTE: Temp should be above freezing to 6°C. ☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: ☒ N/A (Water) Sample/Other (describe): _____ Initials & Date of Person Examining Contents: EC 8-24-24

Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO

NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one): ☐ DULUTH ☒ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)								
Chain of Custody Present and Filled Out?	☒	☐	☐	1.								
Chain of Custody Relinquished?	☒	☐	☐	2.								
Sampler Name and/or Signature on COC?	☒	☐	☐	3.								
Samples Arrived within Hold Time?	☒	☐	☐	4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No								
Short Hold Time Analysis (<72 hr)?	☒	☒	☐	5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom. ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/E. coli ☐ Other: _____								
Rush Turn Around Time Requested?	☐	☒	☐	6.								
Sufficient Sample Volume?	☒	☐	☐	7.								
Correct Containers Used?	☒	☐	☐	8.								
– Pace Containers Used?	☒	☐	☐	9.								
Containers Intact?	☒	☐	☐	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO								
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☒	11. If NO, write ID/Date/Time of container below: ☐ See Exceptions form ENV-FRM-MIN4-0142								
Is sufficient information available to reconcile the samples to the COC? NOTE: If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☒ Water ☐ Other	☒	☐	☐	12. Sample #: ☐ HNO ₃ ☐ H ₂ SO ₄ ☐ NaOH ☐ Zinc Acetate Positive for Residual Chlorine: ☐ YES ☐ NO pH Paper Lot # <table border="1" style="width: 100%;"> <tr> <th>Residual Chlorine</th> <th>0-6 Roll</th> <th>0-6 Strip</th> <th>0-14 Strip</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> ☐ See Exceptions form ENV-FRM-MIN4-0142	Residual Chlorine	0-6 Roll	0-6 Strip	0-14 Strip				
Residual Chlorine	0-6 Roll	0-6 Strip	0-14 Strip									
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☒	13.								
NOTE: If adding preservation to the container, verify with the PM first. Clients may require adding preservative to the field and equipment blanks when this occurs.	☐	☐	☒	14. ☐ See Exceptions form ENV-FRM-MIN4-0140								
Headspace in Methyl Mercury Container?	☐	☐	☒	15.								
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☒	Pace Trip Blank Lot # (if purchased): _____								
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☒									
Trip Blanks Present?	☐	☐	☒									
Trip Blank Custody Seals Present?	☐	☐	☒									

CLIENT NOTIFICATION / RESOLUTION FIELD DATA REQUIRED: ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: Anna Asp Date: 8/22/2024

NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: CC Line: 2

Workorder #: _____

No Temp Blank		
Read Temp	Corrected Temp	Average temp
16.8	16.6	14.5
13.3	13.1	
14.1	13.9	
14.4	14.2	

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO If yes, indicate who was contacted, date and time. If no, indicate reason why. _____
Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you **MUST** document containers in this section **HERE**



Tracking Number	Temperature



Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								YES	NO	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:



October 22, 2024

Dan O'Neill
WSB & Associates
178 East 9th St
Suite 200
Saint Paul, MN 55101

RE: Project: Sunfish Lake PFAS 2024
Pace Project No.: 10705584

Dear Dan O'Neill:

Enclosed are the analytical results for sample(s) received by the laboratory on August 27, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Annika Asp'.

Annika Asp
annika.asp@pacelabs.com
(612)607-1700
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

DoD Certification via A2LA #: 2926.01

EPA Region 8 Tribal Water Systems+Wyoming DW
Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

GMP+ Certification #: GMP050884

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

ISO/IEC 17025 Certification via A2LA #: 2926.01

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Approval: via MN 027-053-137

Minnesota Petrofund Registration #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification (A2LA) #: R-036

North Dakota Certification (MN) #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification (1700) #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification via A2LA #: 2926.01

USDA Permit #: P330-19-00208

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10705584001	SF-LMB	Tissue	08/21/24 13:35	08/27/24 08:10
10705584002	SF-SF-2	Tissue	08/21/24 14:02	08/27/24 08:10
10705584003	HB-YP	Tissue	08/21/24 11:07	08/27/24 08:10
10705584004	HB-SF-2	Tissue	08/21/24 11:31	08/27/24 08:10
10705584005	HB-SF-1	Tissue	08/21/24 11:24	08/27/24 08:10
10705584006	HS-BB-1	Tissue	08/21/24 08:49	08/27/24 08:10
10705584007	HS-BB-2	Tissue	08/21/24 09:31	08/27/24 08:10
10705584008	HS-LMB	Tissue	08/21/24 09:01	08/27/24 08:10
10705584009	SF-SF-1	Tissue	08/21/24 13:21	08/27/24 08:10

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SAMPLE ANALYTE COUNT

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10705584001	SF-LMB	ASTM D2974	NJ1	1	PASI-M
		Pace SOP	CWN	1	PASI-G
		EPA 1633 DRAFT	NBH	56	PASI-M
10705584002	SF-SF-2	ASTM D2974	NJ1	1	PASI-M
		Pace SOP	CWN	1	PASI-G
		EPA 1633 DRAFT	NBH	56	PASI-M
10705584003	HB-YP	ASTM D2974	NJ1	1	PASI-M
		Pace SOP	CWN	1	PASI-G
		EPA 1633 DRAFT	NBH	56	PASI-M
10705584004	HB-SF-2	ASTM D2974	NJ1	1	PASI-M
		Pace SOP	CWN	1	PASI-G
		EPA 1633 DRAFT	NBH	56	PASI-M
10705584005	HB-SF-1	ASTM D2974	NJ1	1	PASI-M
		Pace SOP	CWN	1	PASI-G
		EPA 1633 DRAFT	NBH	56	PASI-M
10705584006	HS-BB-1	ASTM D2974	NJ1	1	PASI-M
		Pace SOP	CWN	1	PASI-G
		EPA 1633 DRAFT	NBH	56	PASI-M
10705584007	HS-BB-2	ASTM D2974	NJ1	1	PASI-M
		Pace SOP	CWN	1	PASI-G
		EPA 1633 DRAFT	NBH	56	PASI-M
10705584008	HS-LMB	ASTM D2974	NJ1	1	PASI-M
		Pace SOP	CWN	1	PASI-G
		EPA 1633 DRAFT	NBH	56	PASI-M
10705584009	SF-SF-1	ASTM D2974	NJ1	1	PASI-M
		Pace SOP	CWN	1	PASI-G
		EPA 1633 DRAFT	MJL	56	PASI-M

PASI-G = Pace Analytical Services - Green Bay

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: SF-LMB Lab ID: 10705584001 Collected: 08/21/24 13:35 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974								
Analytical Method: ASTM D2974								
Pace Analytical Services - Minneapolis								
Percent Moisture	79.4	%	0.10	1		09/25/24 14:11		N2
Grinding								
Analytical Method: Pace SOP								
Pace Analytical Services - Green Bay								
Grind Date	08/28/2024 11:04			1		08/28/24 11:04		
EPA 1633 DRAFT Tissue								
Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT								
Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.57	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:18	763051-92-9	
3:3 FTCA	<1.1	ug/kg	2.5	1	10/01/24 13:38	10/02/24 19:18	356-02-5	
4:2 FTS	<0.30	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:18	757124-72-4	
5:3 FTCA	<1.9	ug/kg	12.3	1	10/01/24 13:38	10/02/24 19:18	914637-49-3	
6:2 FTS	<0.35	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:18	27619-97-2	
7:3 FTCA	<2.5	ug/kg	12.3	1	10/01/24 13:38	10/02/24 19:18	812-70-4	
8:2 FTS	<0.44	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:18	39108-34-4	
9CI-PF3ONS	<0.42	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:18	756426-58-1	
ADONA	<0.38	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:18	919005-14-4	
HFPO-DA	<0.40	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:18	13252-13-6	
NEtFOSAA	<0.065	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	2991-50-6	
NFDHA	<0.14	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:18	151772-58-6	
NMeFOSAA	<0.18	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	2355-31-9	
PFBS	<0.057	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	375-73-5	
PFDA	0.96	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	335-76-2	B
PFHxA	<0.061	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	307-24-4	
PFBA	<0.62	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:18	375-22-4	
PFDS	0.12J	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	335-77-3	
PFEESA	<0.14	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:18	113507-82-7	
PFHpS	<0.081	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	375-92-8	
PFMBA	<0.16	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:18	863090-89-5	
PFMPA	<0.16	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:18	377-73-1	
PFNS	<0.12	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	68259-12-1	
PFOSA	<0.071	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	754-91-6	
PFPeA	<0.18	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:18	2706-90-3	
PFPeS	<0.098	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	2706-91-4	
PFDoA	0.25J	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	307-55-1	
PFHpA	<0.10	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	375-85-9	
PFHxS	<0.11	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	355-46-4	
PFNA	<0.088	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	375-95-1	
PFOS	8.0	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	1763-23-1	
PFOA	<0.065	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	335-67-1	
PFTeDA	0.080J	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	376-06-7	
PFTTrDA	<0.13	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	72629-94-8	
PFUnA	0.85	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:18	2058-94-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: SF-LMB Lab ID: 10705584001 Collected: 08/21/24 13:35 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Tissue	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates								
13C2-PFDoA (S)	63	%.	35-180	1	10/01/24 13:38	10/02/24 19:18		
13C3HFPO-DA (S)	89	%.	20-185	1	10/01/24 13:38	10/02/24 19:18		
13C3-PFBS (S)	89	%.	25-190	1	10/01/24 13:38	10/02/24 19:18		
13C3-PFHxS (S)	105	%.	35-175	1	10/01/24 13:38	10/02/24 19:18		
13C4-PFBA (S)	91	%.	5-130	1	10/01/24 13:38	10/02/24 19:18		
13C4-PFHpA (S)	93	%.	25-150	1	10/01/24 13:38	10/02/24 19:18		
13C5-PFHxA (S)	94	%.	25-170	1	10/01/24 13:38	10/02/24 19:18		
13C5-PFPeA (S)	94	%.	10-185	1	10/01/24 13:38	10/02/24 19:18		
13C6-PFDA (S)	89	%.	30-150	1	10/01/24 13:38	10/02/24 19:18		
13C8-PFOA (S)	95	%.	25-150	1	10/01/24 13:38	10/02/24 19:18		
13C8-PFOS (S)	98	%.	40-160	1	10/01/24 13:38	10/02/24 19:18		
13C8-PFOSA (S)	84	%.	25-180	1	10/01/24 13:38	10/02/24 19:18		
13C9-PFNA (S)	93	%.	35-185	1	10/01/24 13:38	10/02/24 19:18		
d3-MeFOSAA (S)	93	%.	30-250	1	10/01/24 13:38	10/02/24 19:18		
d5-EtFOSAA (S)	93	%.	30-235	1	10/01/24 13:38	10/02/24 19:18		
d7-NMeFOSE (S)	29	%.	5-160	1	10/01/24 13:38	10/02/24 19:18		
13C2-PFTA (S)	22	%.	20-160	1	10/01/24 13:38	10/02/24 19:18		
13C7-PFUdA (S)	82	%.	30-180	1	10/01/24 13:38	10/02/24 19:18		
13C24:2FTS (S)	154	%.	30-300	1	10/01/24 13:38	10/02/24 19:18		
13C26:2FTS (S)	206	%.	35-300	1	10/01/24 13:38	10/02/24 19:18		
13C28:2FTS (S)	196	%.	40-365	1	10/01/24 13:38	10/02/24 19:18		

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: SF-SF-2 Lab ID: 10705584002 Collected: 08/21/24 14:02 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974								
Analytical Method: ASTM D2974								
Pace Analytical Services - Minneapolis								
Percent Moisture	80.9	%	0.10	1		09/25/24 14:16		N2
Grinding								
Analytical Method: Pace SOP								
Pace Analytical Services - Green Bay								
Grind Date	08/28/2024 11:04			1		08/28/24 11:04		
EPA 1633 DRAFT Tissue								
Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT								
Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.57	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:34	763051-92-9	
3:3 FTCA	<1.1	ug/kg	2.5	1	10/01/24 13:38	10/02/24 19:34	356-02-5	
4:2 FTS	<0.30	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:34	757124-72-4	
5:3 FTCA	<1.9	ug/kg	12.4	1	10/01/24 13:38	10/02/24 19:34	914637-49-3	
6:2 FTS	<0.35	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:34	27619-97-2	
7:3 FTCA	<2.6	ug/kg	12.4	1	10/01/24 13:38	10/02/24 19:34	812-70-4	
8:2 FTS	<0.44	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:34	39108-34-4	
9CI-PF3ONS	<0.42	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:34	756426-58-1	
ADONA	<0.38	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:34	919005-14-4	
HFPO-DA	<0.40	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:34	13252-13-6	
NEtFOSAA	<0.065	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	2991-50-6	
NFDHA	<0.14	ug/kg	0.99	1	10/01/24 13:38	10/02/24 19:34	151772-58-6	
NMeFOSAA	<0.18	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	2355-31-9	
PFBS	<0.057	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	375-73-5	
PFDA	0.45J	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	335-76-2	
PFHxA	<0.061	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	307-24-4	
PFBA	<0.62	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:34	375-22-4	
PFDS	<0.11	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	335-77-3	
PFEESA	<0.15	ug/kg	0.99	1	10/01/24 13:38	10/02/24 19:34	113507-82-7	
PFHpS	<0.082	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	375-92-8	
PFMBA	<0.16	ug/kg	0.99	1	10/01/24 13:38	10/02/24 19:34	863090-89-5	
PFMPA	<0.16	ug/kg	0.99	1	10/01/24 13:38	10/02/24 19:34	377-73-1	
PFNS	<0.12	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	68259-12-1	
PFOSA	<0.071	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	754-91-6	
PFPeA	<0.18	ug/kg	0.99	1	10/01/24 13:38	10/02/24 19:34	2706-90-3	
PFPeS	<0.098	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	2706-91-4	
PFDoA	0.19J	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	307-55-1	
PFHpA	<0.10	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	375-85-9	
PFHxS	<0.11	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	355-46-4	
PFNA	<0.088	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	375-95-1	
PFOS	3.4	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	1763-23-1	
PFOA	<0.065	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	335-67-1	
PFTeDA	<0.074	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	376-06-7	
PFTTrDA	<0.13	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	72629-94-8	
PFUnA	0.53	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:34	2058-94-8	

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: SF-SF-2 Lab ID: 10705584002 Collected: 08/21/24 14:02 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Tissue	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates								
13C2-PFDoA (S)	75	%.	35-180	1	10/01/24 13:38	10/02/24 19:34		S0
13C3HFPO-DA (S)	51	%.	20-185	1	10/01/24 13:38	10/02/24 19:34		
13C3-PFBS (S)	62	%.	25-190	1	10/01/24 13:38	10/02/24 19:34		
13C3-PFHxS (S)	93	%.	35-175	1	10/01/24 13:38	10/02/24 19:34		
13C4-PFBA (S)	4	%.	5-130	1	10/01/24 13:38	10/02/24 19:34		
13C4-PFHpA (S)	73	%.	25-150	1	10/01/24 13:38	10/02/24 19:34		
13C5-PFHxA (S)	53	%.	25-170	1	10/01/24 13:38	10/02/24 19:34		
13C5-PFPeA (S)	27	%.	10-185	1	10/01/24 13:38	10/02/24 19:34		
13C6-PFDA (S)	84	%.	30-150	1	10/01/24 13:38	10/02/24 19:34		
13C8-PFOA (S)	83	%.	25-150	1	10/01/24 13:38	10/02/24 19:34		
13C8-PFOS (S)	96	%.	40-160	1	10/01/24 13:38	10/02/24 19:34		
13C8-PFOSA (S)	96	%.	25-180	1	10/01/24 13:38	10/02/24 19:34		
13C9-PFNA (S)	87	%.	35-185	1	10/01/24 13:38	10/02/24 19:34		
d3-MeFOSAA (S)	95	%.	30-250	1	10/01/24 13:38	10/02/24 19:34		
d5-EtFOSAA (S)	93	%.	30-235	1	10/01/24 13:38	10/02/24 19:34		
d7-NMeFOSE (S)	30	%.	5-160	1	10/01/24 13:38	10/02/24 19:34		
13C2-PFTA (S)	20	%.	20-160	1	10/01/24 13:38	10/02/24 19:34		
13C7-PFUdA (S)	88	%.	30-180	1	10/01/24 13:38	10/02/24 19:34		
13C24:2FTS (S)	47	%.	30-300	1	10/01/24 13:38	10/02/24 19:34		
13C26:2FTS (S)	158	%.	35-300	1	10/01/24 13:38	10/02/24 19:34		
13C28:2FTS (S)	174	%.	40-365	1	10/01/24 13:38	10/02/24 19:34		

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HB-YP Lab ID: 10705584003 Collected: 08/21/24 11:07 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974								
Analytical Method: ASTM D2974								
Pace Analytical Services - Minneapolis								
Percent Moisture	80.3	%	0.10	1		09/25/24 14:17		N2
Grinding								
Analytical Method: Pace SOP								
Pace Analytical Services - Green Bay								
Grind Date	08/28/2024 11:04			1		08/28/24 11:04		
EPA 1633 DRAFT Tissue								
Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT								
Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.57	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:50	763051-92-9	
3:3 FTCA	<1.1	ug/kg	2.4	1	10/01/24 13:38	10/02/24 19:50	356-02-5	
4:2 FTS	<0.29	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:50	757124-72-4	
5:3 FTCA	<1.9	ug/kg	12.2	1	10/01/24 13:38	10/02/24 19:50	914637-49-3	
6:2 FTS	<0.35	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:50	27619-97-2	
7:3 FTCA	<2.5	ug/kg	12.2	1	10/01/24 13:38	10/02/24 19:50	812-70-4	
8:2 FTS	<0.43	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:50	39108-34-4	
9CI-PF3ONS	<0.41	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:50	756426-58-1	
ADONA	<0.37	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:50	919005-14-4	
HFPO-DA	<0.40	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:50	13252-13-6	
NEtFOSAA	<0.065	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	2991-50-6	
NFDHA	<0.14	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:50	151772-58-6	
NMeFOSAA	<0.18	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	2355-31-9	
PFBS	<0.056	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	375-73-5	
PFDA	1.1	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	335-76-2	
PFHxA	<0.061	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	307-24-4	
PFBA	<0.61	ug/kg	2.0	1	10/01/24 13:38	10/02/24 19:50	375-22-4	
PFDS	<0.11	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	335-77-3	
PFEESA	<0.14	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:50	113507-82-7	
PFHpS	<0.081	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	375-92-8	
PFMBA	<0.16	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:50	863090-89-5	
PFMPA	<0.15	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:50	377-73-1	
PFNS	<0.12	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	68259-12-1	
PFOSA	<0.070	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	754-91-6	
PFPeA	<0.18	ug/kg	0.98	1	10/01/24 13:38	10/02/24 19:50	2706-90-3	
PFPeS	<0.097	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	2706-91-4	
PFDoA	0.223	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	307-55-1	
PFHpA	<0.10	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	375-85-9	
PFHxS	<0.10	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	355-46-4	
PFNA	<0.087	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	375-95-1	
PFOS	4.3	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	1763-23-1	
PFOA	<0.064	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	335-67-1	
PFTeDA	<0.073	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	376-06-7	
PFTTrDA	<0.13	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	72629-94-8	
PFUnA	0.76	ug/kg	0.49	1	10/01/24 13:38	10/02/24 19:50	2058-94-8	

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HB-YP Lab ID: 10705584003 Collected: 08/21/24 11:07 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Tissue	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates								
13C2-PFDoA (S)	72	%.	35-180	1	10/01/24 13:38	10/02/24 19:50		
13C3HFPO-DA (S)	82	%.	20-185	1	10/01/24 13:38	10/02/24 19:50		
13C3-PFBS (S)	98	%.	25-190	1	10/01/24 13:38	10/02/24 19:50		
13C3-PFHxS (S)	102	%.	35-175	1	10/01/24 13:38	10/02/24 19:50		
13C4-PFBA (S)	12	%.	5-130	1	10/01/24 13:38	10/02/24 19:50		
13C4-PFHpA (S)	88	%.	25-150	1	10/01/24 13:38	10/02/24 19:50		
13C5-PFHxA (S)	88	%.	25-170	1	10/01/24 13:38	10/02/24 19:50		
13C5-PFPeA (S)	70	%.	10-185	1	10/01/24 13:38	10/02/24 19:50		
13C6-PFDA (S)	89	%.	30-150	1	10/01/24 13:38	10/02/24 19:50		
13C8-PFOA (S)	92	%.	25-150	1	10/01/24 13:38	10/02/24 19:50		
13C8-PFOS (S)	97	%.	40-160	1	10/01/24 13:38	10/02/24 19:50		
13C8-PFOSA (S)	95	%.	25-180	1	10/01/24 13:38	10/02/24 19:50		
13C9-PFNA (S)	90	%.	35-185	1	10/01/24 13:38	10/02/24 19:50		
d3-MeFOSAA (S)	97	%.	30-250	1	10/01/24 13:38	10/02/24 19:50		
d5-EtFOSAA (S)	99	%.	30-235	1	10/01/24 13:38	10/02/24 19:50		
d7-NMeFOSE (S)	24	%.	5-160	1	10/01/24 13:38	10/02/24 19:50		
13C2-PFTA (S)	15	%.	20-160	1	10/01/24 13:38	10/02/24 19:50		S0
13C7-PFUdA (S)	89	%.	30-180	1	10/01/24 13:38	10/02/24 19:50		
13C24:2FTS (S)	122	%.	30-300	1	10/01/24 13:38	10/02/24 19:50		
13C26:2FTS (S)	150	%.	35-300	1	10/01/24 13:38	10/02/24 19:50		
13C28:2FTS (S)	185	%.	40-365	1	10/01/24 13:38	10/02/24 19:50		

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HB-SF-2 Lab ID: 10705584004 Collected: 08/21/24 11:31 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974								
Analytical Method: ASTM D2974								
Pace Analytical Services - Minneapolis								
Percent Moisture	82.4	%	0.10	1		09/25/24 14:18		N2
Grinding								
Analytical Method: Pace SOP								
Pace Analytical Services - Green Bay								
Grind Date	08/28/2024 11:04			1		08/28/24 11:04		
EPA 1633 DRAFT Tissue								
Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT								
Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.56	ug/kg	1.9	1	10/01/24 13:38	10/02/24 20:05	763051-92-9	
3:3 FTCA	<1.1	ug/kg	2.4	1	10/01/24 13:38	10/02/24 20:05	356-02-5	
4:2 FTS	<0.29	ug/kg	1.9	1	10/01/24 13:38	10/02/24 20:05	757124-72-4	
5:3 FTCA	<1.9	ug/kg	12.0	1	10/01/24 13:38	10/02/24 20:05	914637-49-3	
6:2 FTS	<0.34	ug/kg	1.9	1	10/01/24 13:38	10/02/24 20:05	27619-97-2	
7:3 FTCA	<2.5	ug/kg	12.0	1	10/01/24 13:38	10/02/24 20:05	812-70-4	
8:2 FTS	<0.42	ug/kg	1.9	1	10/01/24 13:38	10/02/24 20:05	39108-34-4	
9CI-PF3ONS	<0.41	ug/kg	1.9	1	10/01/24 13:38	10/02/24 20:05	756426-58-1	
ADONA	<0.37	ug/kg	1.9	1	10/01/24 13:38	10/02/24 20:05	919005-14-4	
HFPO-DA	<0.39	ug/kg	1.9	1	10/01/24 13:38	10/02/24 20:05	13252-13-6	
NEtFOSAA	<0.064	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	2991-50-6	
NFDHA	<0.14	ug/kg	0.96	1	10/01/24 13:38	10/02/24 20:05	151772-58-6	
NMeFOSAA	<0.17	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	2355-31-9	
PFBS	<0.055	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	375-73-5	
PFDA	0.39J	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	335-76-2	B
PFHxA	<0.059	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	307-24-4	
PFBA	<0.60	ug/kg	1.9	1	10/01/24 13:38	10/02/24 20:05	375-22-4	
PFDS	<0.11	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	335-77-3	
PFEESA	<0.14	ug/kg	0.96	1	10/01/24 13:38	10/02/24 20:05	113507-82-7	
PFHpS	<0.079	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	375-92-8	
PFMBA	<0.15	ug/kg	0.96	1	10/01/24 13:38	10/02/24 20:05	863090-89-5	
PFMPA	<0.15	ug/kg	0.96	1	10/01/24 13:38	10/02/24 20:05	377-73-1	
PFNS	<0.12	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	68259-12-1	
PFOSA	<0.069	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	754-91-6	
PFPeA	<0.17	ug/kg	0.96	1	10/01/24 13:38	10/02/24 20:05	2706-90-3	
PFPeS	<0.095	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	2706-91-4	
PFDoA	0.22J	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	307-55-1	
PFHpA	<0.098	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	375-85-9	
PFHxS	<0.10	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	355-46-4	
PFNA	<0.086	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	375-95-1	
PFOS	3.5	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	1763-23-1	
PFOA	<0.063	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	335-67-1	
PFTeDA	0.11J	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	376-06-7	
PFTTrDA	<0.12	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	72629-94-8	
PFUnA	0.30J	ug/kg	0.48	1	10/01/24 13:38	10/02/24 20:05	2058-94-8	

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HB-SF-2 Lab ID: 10705584004 Collected: 08/21/24 11:31 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Tissue	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates								
13C2-PFDoA (S)	61	%.	35-180	1	10/01/24 13:38	10/02/24 20:05		
13C3HFPO-DA (S)	49	%.	20-185	1	10/01/24 13:38	10/02/24 20:05		
13C3-PFBS (S)	59	%.	25-190	1	10/01/24 13:38	10/02/24 20:05		
13C3-PFHxS (S)	80	%.	35-175	1	10/01/24 13:38	10/02/24 20:05		
13C4-PFBA (S)	13	%.	5-130	1	10/01/24 13:38	10/02/24 20:05		
13C4-PFHpA (S)	65	%.	25-150	1	10/01/24 13:38	10/02/24 20:05		
13C5-PFHxA (S)	53	%.	25-170	1	10/01/24 13:38	10/02/24 20:05		
13C5-PFPeA (S)	36	%.	10-185	1	10/01/24 13:38	10/02/24 20:05		
13C6-PFDA (S)	74	%.	30-150	1	10/01/24 13:38	10/02/24 20:05		
13C8-PFOA (S)	68	%.	25-150	1	10/01/24 13:38	10/02/24 20:05		
13C8-PFOS (S)	82	%.	40-160	1	10/01/24 13:38	10/02/24 20:05		
13C8-PFOSA (S)	76	%.	25-180	1	10/01/24 13:38	10/02/24 20:05		
13C9-PFNA (S)	69	%.	35-185	1	10/01/24 13:38	10/02/24 20:05		
d3-MeFOSAA (S)	81	%.	30-250	1	10/01/24 13:38	10/02/24 20:05		
d5-EtFOSAA (S)	81	%.	30-235	1	10/01/24 13:38	10/02/24 20:05		
d7-NMeFOSE (S)	21	%.	5-160	1	10/01/24 13:38	10/02/24 20:05		
13C2-PFTA (S)	14	%.	20-160	1	10/01/24 13:38	10/02/24 20:05		S0
13C7-PFUdA (S)	74	%.	30-180	1	10/01/24 13:38	10/02/24 20:05		
13C24:2FTS (S)	56	%.	30-300	1	10/01/24 13:38	10/02/24 20:05		
13C26:2FTS (S)	168	%.	35-300	1	10/01/24 13:38	10/02/24 20:05		
13C28:2FTS (S)	191	%.	40-365	1	10/01/24 13:38	10/02/24 20:05		

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HB-SF-1 Lab ID: 10705584005 Collected: 08/21/24 11:24 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974								
Analytical Method: ASTM D2974								
Pace Analytical Services - Minneapolis								
Percent Moisture	83.6	%	0.10	1		09/25/24 14:19		N2
Grinding								
Analytical Method: Pace SOP								
Pace Analytical Services - Green Bay								
Grind Date	08/28/2024 11:04			1		08/28/24 11:04		
EPA 1633 DRAFT Tissue								
Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT								
Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.57	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:21	763051-92-9	
3:3 FTCA	<1.1	ug/kg	2.5	1	10/01/24 13:38	10/02/24 20:21	356-02-5	
4:2 FTS	<0.30	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:21	757124-72-4	
5:3 FTCA	<2.0	ug/kg	12.4	1	10/01/24 13:38	10/02/24 20:21	914637-49-3	
6:2 FTS	<0.35	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:21	27619-97-2	
7:3 FTCA	<2.6	ug/kg	12.4	1	10/01/24 13:38	10/02/24 20:21	812-70-4	
8:2 FTS	<0.44	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:21	39108-34-4	
9CI-PF3ONS	<0.42	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:21	756426-58-1	
ADONA	<0.38	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:21	919005-14-4	
HFPO-DA	<0.40	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:21	13252-13-6	
NEtFOSAA	<0.066	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	2991-50-6	
NFDHA	<0.14	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:21	151772-58-6	
NMeFOSAA	<0.18	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	2355-31-9	
PFBS	<0.057	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	375-73-5	
PFDA	0.38J	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	335-76-2	
PFHxA	<0.061	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	307-24-4	
PFBA	1.1J	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:21	375-22-4	
PFDS	<0.11	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	335-77-3	
PFEESA	<0.15	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:21	113507-82-7	
PFHpS	<0.082	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	375-92-8	
PFMBA	<0.16	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:21	863090-89-5	
PFMPA	<0.16	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:21	377-73-1	
PFNS	<0.12	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	68259-12-1	
PFOSA	<0.071	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	754-91-6	
PFPeA	<0.18	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:21	2706-90-3	
PFPeS	<0.098	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	2706-91-4	
PFDoA	0.15J	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	307-55-1	
PFHpA	<0.10	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	375-85-9	
PFHxS	<0.11	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	355-46-4	
PFNA	<0.089	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	375-95-1	
PFOS	3.2	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	1763-23-1	
PFOA	<0.065	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	335-67-1	
PFTeDA	<0.074	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	376-06-7	
PFTTrDA	<0.13	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	72629-94-8	
PFUnA	0.34J	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:21	2058-94-8	

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HB-SF-1 Lab ID: 10705584005 Collected: 08/21/24 11:24 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Tissue	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates								
13C2-PFDoA (S)	86	%.	35-180	1	10/01/24 13:38	10/02/24 20:21		S0
13C3HFPO-DA (S)	83	%.	20-185	1	10/01/24 13:38	10/02/24 20:21		
13C3-PFBS (S)	91	%.	25-190	1	10/01/24 13:38	10/02/24 20:21		
13C3-PFHxS (S)	103	%.	35-175	1	10/01/24 13:38	10/02/24 20:21		
13C4-PFBA (S)	4	%.	5-130	1	10/01/24 13:38	10/02/24 20:21		
13C4-PFHpA (S)	99	%.	25-150	1	10/01/24 13:38	10/02/24 20:21		
13C5-PFHxA (S)	86	%.	25-170	1	10/01/24 13:38	10/02/24 20:21		
13C5-PFPeA (S)	42	%.	10-185	1	10/01/24 13:38	10/02/24 20:21		
13C6-PFDA (S)	97	%.	30-150	1	10/01/24 13:38	10/02/24 20:21		
13C8-PFOA (S)	98	%.	25-150	1	10/01/24 13:38	10/02/24 20:21		
13C8-PFOS (S)	98	%.	40-160	1	10/01/24 13:38	10/02/24 20:21		
13C8-PFOSA (S)	105	%.	25-180	1	10/01/24 13:38	10/02/24 20:21		
13C9-PFNA (S)	97	%.	35-185	1	10/01/24 13:38	10/02/24 20:21		
d3-MeFOSAA (S)	98	%.	30-250	1	10/01/24 13:38	10/02/24 20:21		
d5-EtFOSAA (S)	103	%.	30-235	1	10/01/24 13:38	10/02/24 20:21		
d7-NMeFOSE (S)	29	%.	5-160	1	10/01/24 13:38	10/02/24 20:21		
13C2-PFTA (S)	22	%.	20-160	1	10/01/24 13:38	10/02/24 20:21		
13C7-PFUdA (S)	95	%.	30-180	1	10/01/24 13:38	10/02/24 20:21		
13C24:2FTS (S)	94	%.	30-300	1	10/01/24 13:38	10/02/24 20:21		
13C26:2FTS (S)	211	%.	35-300	1	10/01/24 13:38	10/02/24 20:21		
13C28:2FTS (S)	207	%.	40-365	1	10/01/24 13:38	10/02/24 20:21		

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HS-BB-1 Lab ID: 10705584006 Collected: 08/21/24 08:49 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974								
Analytical Method: ASTM D2974								
Pace Analytical Services - Minneapolis								
Percent Moisture	85.3	%	0.10	1		09/25/24 14:20		N2
Grinding								
Analytical Method: Pace SOP								
Pace Analytical Services - Green Bay								
Grind Date	08/28/2024 11:04			1		08/28/24 11:04		
EPA 1633 DRAFT Tissue								
Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT								
Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.57	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:37	763051-92-9	
3:3 FTCA	<1.1	ug/kg	2.5	1	10/01/24 13:38	10/02/24 20:37	356-02-5	
4:2 FTS	<0.30	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:37	757124-72-4	
5:3 FTCA	<1.9	ug/kg	12.3	1	10/01/24 13:38	10/02/24 20:37	914637-49-3	
6:2 FTS	<0.35	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:37	27619-97-2	
7:3 FTCA	<2.5	ug/kg	12.3	1	10/01/24 13:38	10/02/24 20:37	812-70-4	
8:2 FTS	<0.44	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:37	39108-34-4	
9CI-PF3ONS	<0.42	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:37	756426-58-1	
ADONA	<0.38	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:37	919005-14-4	
HFPO-DA	<0.40	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:37	13252-13-6	
NEtFOSAA	<0.065	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	2991-50-6	
NFDHA	<0.14	ug/kg	0.98	1	10/01/24 13:38	10/02/24 20:37	151772-58-6	
NMeFOSAA	<0.18	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	2355-31-9	
PFBS	<0.057	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	375-73-5	
PFDA	0.13J	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	335-76-2	B
PFHxA	<0.061	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	307-24-4	
PFBA	<0.62	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:37	375-22-4	
PFDS	<0.11	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	335-77-3	
PFEESA	<0.14	ug/kg	0.98	1	10/01/24 13:38	10/02/24 20:37	113507-82-7	
PFHpS	<0.081	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	375-92-8	
PFMBA	<0.16	ug/kg	0.98	1	10/01/24 13:38	10/02/24 20:37	863090-89-5	
PFMPA	<0.16	ug/kg	0.98	1	10/01/24 13:38	10/02/24 20:37	377-73-1	
PFNS	<0.12	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	68259-12-1	
PFOSA	<0.071	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	754-91-6	
PFPeA	<0.18	ug/kg	0.98	1	10/01/24 13:38	10/02/24 20:37	2706-90-3	
PFPeS	<0.098	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	2706-91-4	
PFDoA	<0.078	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	307-55-1	
PFHpA	<0.10	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	375-85-9	
PFHxS	<0.11	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	355-46-4	
PFNA	<0.088	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	375-95-1	
PFOS	0.23J	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	1763-23-1	
PFOA	<0.065	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	335-67-1	
PFTeDA	<0.074	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	376-06-7	
PFTTrDA	<0.13	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	72629-94-8	
PFUnA	0.14J	ug/kg	0.49	1	10/01/24 13:38	10/02/24 20:37	2058-94-8	

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HS-BB-1 Lab ID: 10705584006 Collected: 08/21/24 08:49 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Tissue	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates								
13C2-PFDoA (S)	72	%.	35-180	1	10/01/24 13:38	10/02/24 20:37		
13C3HFPO-DA (S)	84	%.	20-185	1	10/01/24 13:38	10/02/24 20:37		
13C3-PFBS (S)	93	%.	25-190	1	10/01/24 13:38	10/02/24 20:37		
13C3-PFHxS (S)	98	%.	35-175	1	10/01/24 13:38	10/02/24 20:37		
13C4-PFBA (S)	59	%.	5-130	1	10/01/24 13:38	10/02/24 20:37		
13C4-PFHpA (S)	92	%.	25-150	1	10/01/24 13:38	10/02/24 20:37		
13C5-PFHxA (S)	91	%.	25-170	1	10/01/24 13:38	10/02/24 20:37		
13C5-PFPeA (S)	89	%.	10-185	1	10/01/24 13:38	10/02/24 20:37		
13C6-PFDA (S)	92	%.	30-150	1	10/01/24 13:38	10/02/24 20:37		
13C8-PFOA (S)	90	%.	25-150	1	10/01/24 13:38	10/02/24 20:37		
13C8-PFOS (S)	93	%.	40-160	1	10/01/24 13:38	10/02/24 20:37		
13C8-PFOSA (S)	90	%.	25-180	1	10/01/24 13:38	10/02/24 20:37		
13C9-PFNA (S)	93	%.	35-185	1	10/01/24 13:38	10/02/24 20:37		
d3-MeFOSAA (S)	88	%.	30-250	1	10/01/24 13:38	10/02/24 20:37		
d5-EtFOSAA (S)	93	%.	30-235	1	10/01/24 13:38	10/02/24 20:37		
d7-NMeFOSE (S)	27	%.	5-160	1	10/01/24 13:38	10/02/24 20:37		
13C2-PFTA (S)	18	%.	20-160	1	10/01/24 13:38	10/02/24 20:37		S0
13C7-PFUdA (S)	91	%.	30-180	1	10/01/24 13:38	10/02/24 20:37		
13C24:2FTS (S)	122	%.	30-300	1	10/01/24 13:38	10/02/24 20:37		
13C26:2FTS (S)	163	%.	35-300	1	10/01/24 13:38	10/02/24 20:37		
13C28:2FTS (S)	159	%.	40-365	1	10/01/24 13:38	10/02/24 20:37		

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HS-BB-2 Lab ID: 10705584007 Collected: 08/21/24 09:31 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974								
Analytical Method: ASTM D2974								
Pace Analytical Services - Minneapolis								
Percent Moisture	82.3	%	0.10	1		09/25/24 14:22		N2
Grinding								
Analytical Method: Pace SOP								
Pace Analytical Services - Green Bay								
Grind Date	08/28/2024 11:04			1		08/28/24 11:04		
EPA 1633 DRAFT Tissue								
Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT								
Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.58	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:52	763051-92-9	
3:3 FTCA	<1.1	ug/kg	2.5	1	10/01/24 13:38	10/02/24 20:52	356-02-5	
4:2 FTS	<0.30	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:52	757124-72-4	
5:3 FTCA	<2.0	ug/kg	12.4	1	10/01/24 13:38	10/02/24 20:52	914637-49-3	
6:2 FTS	<0.36	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:52	27619-97-2	
7:3 FTCA	<2.6	ug/kg	12.4	1	10/01/24 13:38	10/02/24 20:52	812-70-4	
8:2 FTS	<0.44	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:52	39108-34-4	
9CI-PF3ONS	<0.42	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:52	756426-58-1	
ADONA	<0.38	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:52	919005-14-4	
HFPO-DA	<0.40	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:52	13252-13-6	
NEtFOSAA	<0.066	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	2991-50-6	
NFDHA	<0.14	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:52	151772-58-6	
NMeFOSAA	<0.18	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	2355-31-9	
PFBS	<0.057	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	375-73-5	
PFDA	0.22J	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	335-76-2	
PFHxA	<0.062	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	307-24-4	
PFBA	<0.62	ug/kg	2.0	1	10/01/24 13:38	10/02/24 20:52	375-22-4	
PFDS	<0.11	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	335-77-3	
PFEESA	<0.15	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:52	113507-82-7	
PFHpS	<0.082	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	375-92-8	
PFMBA	<0.16	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:52	863090-89-5	
PFMPA	<0.16	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:52	377-73-1	
PFNS	<0.12	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	68259-12-1	
PFOSA	<0.072	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	754-91-6	
PFPeA	<0.18	ug/kg	0.99	1	10/01/24 13:38	10/02/24 20:52	2706-90-3	
PFPeS	<0.099	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	2706-91-4	
PFDoA	0.18J	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	307-55-1	
PFHpA	<0.10	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	375-85-9	
PFHxS	<0.11	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	355-46-4	
PFNA	<0.089	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	375-95-1	
PFOS	0.95	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	1763-23-1	
PFOA	<0.065	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	335-67-1	
PFTeDA	<0.075	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	376-06-7	
PFTTrDA	<0.13	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	72629-94-8	
PFUnA	0.20J	ug/kg	0.50	1	10/01/24 13:38	10/02/24 20:52	2058-94-8	

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HS-BB-2 Lab ID: 10705584007 Collected: 08/21/24 09:31 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Tissue	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates								
13C2-PFDoA (S)	81	%.	35-180	1	10/01/24 13:38	10/02/24 20:52		
13C3HFPO-DA (S)	58	%.	20-185	1	10/01/24 13:38	10/02/24 20:52		
13C3-PFBS (S)	77	%.	25-190	1	10/01/24 13:38	10/02/24 20:52		
13C3-PFHxS (S)	95	%.	35-175	1	10/01/24 13:38	10/02/24 20:52		
13C4-PFBA (S)	20	%.	5-130	1	10/01/24 13:38	10/02/24 20:52		
13C4-PFHpA (S)	79	%.	25-150	1	10/01/24 13:38	10/02/24 20:52		
13C5-PFHxA (S)	65	%.	25-170	1	10/01/24 13:38	10/02/24 20:52		
13C5-PFPeA (S)	46	%.	10-185	1	10/01/24 13:38	10/02/24 20:52		
13C6-PFDA (S)	91	%.	30-150	1	10/01/24 13:38	10/02/24 20:52		
13C8-PFOA (S)	80	%.	25-150	1	10/01/24 13:38	10/02/24 20:52		
13C8-PFOS (S)	98	%.	40-160	1	10/01/24 13:38	10/02/24 20:52		
13C8-PFOSA (S)	89	%.	25-180	1	10/01/24 13:38	10/02/24 20:52		
13C9-PFNA (S)	87	%.	35-185	1	10/01/24 13:38	10/02/24 20:52		
d3-MeFOSAA (S)	90	%.	30-250	1	10/01/24 13:38	10/02/24 20:52		
d5-EtFOSAA (S)	106	%.	30-235	1	10/01/24 13:38	10/02/24 20:52		
d7-NMeFOSE (S)	26	%.	5-160	1	10/01/24 13:38	10/02/24 20:52		
13C2-PFTA (S)	23	%.	20-160	1	10/01/24 13:38	10/02/24 20:52		
13C7-PFUdA (S)	91	%.	30-180	1	10/01/24 13:38	10/02/24 20:52		
13C24:2FTS (S)	66	%.	30-300	1	10/01/24 13:38	10/02/24 20:52		
13C26:2FTS (S)	145	%.	35-300	1	10/01/24 13:38	10/02/24 20:52		
13C28:2FTS (S)	176	%.	40-365	1	10/01/24 13:38	10/02/24 20:52		

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HS-LMB Lab ID: 10705584008 Collected: 08/21/24 09:01 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974								
Analytical Method: ASTM D2974								
Pace Analytical Services - Minneapolis								
Percent Moisture	81.7	%	0.10	1		09/25/24 14:23		N2
Grinding								
Analytical Method: Pace SOP								
Pace Analytical Services - Green Bay								
Grind Date	08/28/2024 11:04			1		08/28/24 11:04		
EPA 1633 DRAFT Tissue								
Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT								
Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.56	ug/kg	1.9	1	10/01/24 13:38	10/02/24 21:08	763051-92-9	
3:3 FTCA	<1.1	ug/kg	2.4	1	10/01/24 13:38	10/02/24 21:08	356-02-5	
4:2 FTS	<0.29	ug/kg	1.9	1	10/01/24 13:38	10/02/24 21:08	757124-72-4	
5:3 FTCA	<1.9	ug/kg	12.1	1	10/01/24 13:38	10/02/24 21:08	914637-49-3	
6:2 FTS	<0.35	ug/kg	1.9	1	10/01/24 13:38	10/02/24 21:08	27619-97-2	
7:3 FTCA	<2.5	ug/kg	12.1	1	10/01/24 13:38	10/02/24 21:08	812-70-4	
8:2 FTS	<0.43	ug/kg	1.9	1	10/01/24 13:38	10/02/24 21:08	39108-34-4	
9CI-PF3ONS	<0.41	ug/kg	1.9	1	10/01/24 13:38	10/02/24 21:08	756426-58-1	
ADONA	<0.37	ug/kg	1.9	1	10/01/24 13:38	10/02/24 21:08	919005-14-4	
HFPO-DA	<0.39	ug/kg	1.9	1	10/01/24 13:38	10/02/24 21:08	13252-13-6	
NEtFOSAA	<0.064	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	2991-50-6	
NFDHA	<0.14	ug/kg	0.97	1	10/01/24 13:38	10/02/24 21:08	151772-58-6	
NMeFOSAA	<0.17	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	2355-31-9	
PFBS	<0.056	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	375-73-5	
PFDA	1.6	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	335-76-2	
PFHxA	<0.060	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	307-24-4	
PFBA	<0.61	ug/kg	1.9	1	10/01/24 13:38	10/02/24 21:08	375-22-4	
PFDS	0.11J	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	335-77-3	
PFEESA	<0.14	ug/kg	0.97	1	10/01/24 13:38	10/02/24 21:08	113507-82-7	
PFHpS	<0.080	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	375-92-8	
PFMBA	<0.16	ug/kg	0.97	1	10/01/24 13:38	10/02/24 21:08	863090-89-5	
PFMPA	<0.15	ug/kg	0.97	1	10/01/24 13:38	10/02/24 21:08	377-73-1	
PFNS	<0.12	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	68259-12-1	
PFOSA	<0.070	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	754-91-6	
PFPeA	<0.17	ug/kg	0.97	1	10/01/24 13:38	10/02/24 21:08	2706-90-3	
PFPeS	<0.096	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	2706-91-4	
PFDoA	0.16J	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	307-55-1	
PFHpA	<0.099	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	375-85-9	
PFHxS	<0.10	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	355-46-4	
PFNA	0.56	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	375-95-1	B
PFOS	3.5	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	1763-23-1	
PFOA	<0.064	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	335-67-1	
PFTeDA	<0.073	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	376-06-7	
PFTTrDA	<0.13	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	72629-94-8	
PFUnA	0.92	ug/kg	0.48	1	10/01/24 13:38	10/02/24 21:08	2058-94-8	

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: HS-LMB Lab ID: 10705584008 Collected: 08/21/24 09:01 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Tissue	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates								
13C2-PFDoA (S)	70	%.	35-180	1	10/01/24 13:38	10/02/24 21:08		
13C3HFPO-DA (S)	80	%.	20-185	1	10/01/24 13:38	10/02/24 21:08		
13C3-PFBS (S)	92	%.	25-190	1	10/01/24 13:38	10/02/24 21:08		
13C3-PFHxS (S)	102	%.	35-175	1	10/01/24 13:38	10/02/24 21:08		
13C4-PFBA (S)	49	%.	5-130	1	10/01/24 13:38	10/02/24 21:08		
13C4-PFHpA (S)	93	%.	25-150	1	10/01/24 13:38	10/02/24 21:08		
13C5-PFHxA (S)	90	%.	25-170	1	10/01/24 13:38	10/02/24 21:08		
13C5-PFPeA (S)	87	%.	10-185	1	10/01/24 13:38	10/02/24 21:08		
13C6-PFDA (S)	89	%.	30-150	1	10/01/24 13:38	10/02/24 21:08		
13C8-PFOA (S)	87	%.	25-150	1	10/01/24 13:38	10/02/24 21:08		
13C8-PFOS (S)	102	%.	40-160	1	10/01/24 13:38	10/02/24 21:08		
13C8-PFOSA (S)	93	%.	25-180	1	10/01/24 13:38	10/02/24 21:08		
13C9-PFNA (S)	91	%.	35-185	1	10/01/24 13:38	10/02/24 21:08		
d3-MeFOSAA (S)	101	%.	30-250	1	10/01/24 13:38	10/02/24 21:08		
d5-EtFOSAA (S)	104	%.	30-235	1	10/01/24 13:38	10/02/24 21:08		
d7-NMeFOSE (S)	24	%.	5-160	1	10/01/24 13:38	10/02/24 21:08		
13C2-PFTA (S)	17	%.	20-160	1	10/01/24 13:38	10/02/24 21:08		S0
13C7-PFUdA (S)	85	%.	30-180	1	10/01/24 13:38	10/02/24 21:08		
13C24:2FTS (S)	146	%.	30-300	1	10/01/24 13:38	10/02/24 21:08		
13C26:2FTS (S)	226	%.	35-300	1	10/01/24 13:38	10/02/24 21:08		
13C28:2FTS (S)	200	%.	40-365	1	10/01/24 13:38	10/02/24 21:08		

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: SF-SF-1 Lab ID: 10705584009 Collected: 08/21/24 13:21 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974								
Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis								
Percent Moisture	82.7	%	0.10	1		09/25/24 14:24		N2
Grinding								
Analytical Method: Pace SOP Pace Analytical Services - Green Bay								
Grind Date	08/28/2024 11:04			1		08/28/24 11:04		
EPA 1633 DRAFT Tissue								
Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	<0.58	ug/kg	2.0	1	10/01/24 13:38	10/03/24 13:52	763051-92-9	
3:3 FTCA	<1.1	ug/kg	2.5	1	10/01/24 13:38	10/03/24 13:52	356-02-5	
4:2 FTS	<0.30	ug/kg	2.0	1	10/01/24 13:38	10/03/24 13:52	757124-72-4	
5:3 FTCA	<2.0	ug/kg	12.4	1	10/01/24 13:38	10/03/24 13:52	914637-49-3	
6:2 FTS	<0.36	ug/kg	2.0	1	10/01/24 13:38	10/03/24 13:52	27619-97-2	
7:3 FTCA	<2.6	ug/kg	12.4	1	10/01/24 13:38	10/03/24 13:52	812-70-4	
8:2 FTS	<0.44	ug/kg	2.0	1	10/01/24 13:38	10/03/24 13:52	39108-34-4	
9CI-PF3ONS	<0.42	ug/kg	2.0	1	10/01/24 13:38	10/03/24 13:52	756426-58-1	
ADONA	<0.38	ug/kg	2.0	1	10/01/24 13:38	10/03/24 13:52	919005-14-4	
HFPO-DA	<0.40	ug/kg	2.0	1	10/01/24 13:38	10/03/24 13:52	13252-13-6	
NEtFOSAA	<0.066	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	2991-50-6	
NFDHA	<0.14	ug/kg	0.99	1	10/01/24 13:38	10/03/24 13:52	151772-58-6	
NMeFOSAA	<0.18	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	2355-31-9	
PFBS	<0.057	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	375-73-5	
PFDA	0.43J	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	335-76-2	
PFHxA	<0.062	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	307-24-4	
PFBA	<0.63	ug/kg	2.0	1	10/01/24 13:38	10/03/24 13:52	375-22-4	
PFDS	<0.11	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	335-77-3	
PFEESA	<0.15	ug/kg	0.99	1	10/01/24 13:38	10/03/24 13:52	113507-82-7	
PFHpS	<0.082	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	375-92-8	
PFMBA	<0.16	ug/kg	0.99	1	10/01/24 13:38	10/03/24 13:52	863090-89-5	
PFMPA	<0.16	ug/kg	0.99	1	10/01/24 13:38	10/03/24 13:52	377-73-1	
PFNS	<0.12	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	68259-12-1	
PFOSA	<0.072	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	754-91-6	
PFPeA	<0.18	ug/kg	0.99	1	10/01/24 13:38	10/03/24 13:52	2706-90-3	
PFPeS	<0.099	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	2706-91-4	
PFDoA	0.099J	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	307-55-1	
PFHpA	<0.10	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	375-85-9	
PFHxS	<0.11	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	355-46-4	
PFNA	<0.089	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	375-95-1	
PFOS	3.6	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	1763-23-1	
PFOA	<0.065	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	335-67-1	
PFTeDA	<0.075	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	376-06-7	
PFTTrDA	<0.13	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	72629-94-8	
PFUnA	0.37J	ug/kg	0.50	1	10/01/24 13:38	10/03/24 13:52	2058-94-8	

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ANALYTICAL RESULTS

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Sample: SF-SF-1 Lab ID: 10705584009 Collected: 08/21/24 13:21 Received: 08/27/24 08:10 Matrix: Tissue

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Tissue	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Pace Analytical Services - Minneapolis							
Surrogates								
13C2-PFDoA (S)	71	%.	35-180	1	10/01/24 13:38	10/03/24 13:52		
13C3HFPO-DA (S)	113	%.	20-185	1	10/01/24 13:38	10/03/24 13:52		
13C3-PFBS (S)	88	%.	25-190	1	10/01/24 13:38	10/03/24 13:52		
13C3-PFHxS (S)	96	%.	35-175	1	10/01/24 13:38	10/03/24 13:52		
13C4-PFBA (S)	68	%.	5-130	1	10/01/24 13:38	10/03/24 13:52		
13C4-PFHpA (S)	114	%.	25-150	1	10/01/24 13:38	10/03/24 13:52		
13C5-PFHxA (S)	88	%.	25-170	1	10/01/24 13:38	10/03/24 13:52		
13C5-PFPeA (S)	107	%.	10-185	1	10/01/24 13:38	10/03/24 13:52		
13C6-PFDA (S)	87	%.	30-150	1	10/01/24 13:38	10/03/24 13:52		
13C8-PFOA (S)	91	%.	25-150	1	10/01/24 13:38	10/03/24 13:52		
13C8-PFOS (S)	99	%.	40-160	1	10/01/24 13:38	10/03/24 13:52		
13C8-PFOSA (S)	120	%.	25-180	1	10/01/24 13:38	10/03/24 13:52		
13C9-PFNA (S)	94	%.	35-185	1	10/01/24 13:38	10/03/24 13:52		
d3-MeFOSAA (S)	94	%.	30-250	1	10/01/24 13:38	10/03/24 13:52		
d5-EtFOSAA (S)	91	%.	30-235	1	10/01/24 13:38	10/03/24 13:52		
d7-NMeFOSE (S)	4	%.	5-160	1	10/01/24 13:38	10/03/24 13:52		S0
13C2-PFTA (S)	13	%.	20-160	1	10/01/24 13:38	10/03/24 13:52		S0
13C7-PFUdA (S)	85	%.	30-180	1	10/01/24 13:38	10/03/24 13:52		
13C24:2FTS (S)	110	%.	30-300	1	10/01/24 13:38	10/03/24 13:52		
13C26:2FTS (S)	171	%.	35-300	1	10/01/24 13:38	10/03/24 13:52		
13C28:2FTS (S)	152	%.	40-365	1	10/01/24 13:38	10/03/24 13:52		

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QUALITY CONTROL DATA

Project: Sunfish Lake PFAS 2024
Pace Project No.: 10705584

QC Batch:	970123	Analysis Method:	ASTM D2974
QC Batch Method:	ASTM D2974	Analysis Description:	Dry Weight / %M by ASTM D2974
		Laboratory:	Pace Analytical Services - Minneapolis
Associated Lab Samples:	10705584001, 10705584002, 10705584003, 10705584004, 10705584005, 10705584006, 10705584007, 10705584008, 10705584009		

SAMPLE DUPLICATE: 5069577

Parameter	Units	10705584001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	79.4	79.8	1	30	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL DATA

Project: Sunfish Lake PFAS 2024
Pace Project No.: 10705584

QC Batch:	971075	Analysis Method:	EPA 1633 DRAFT
QC Batch Method:	EPA 1633 DRAFT	Analysis Description:	EPA 1633 DRAFT Tissue
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10705584001, 10705584002, 10705584003, 10705584004, 10705584005, 10705584006, 10705584007, 10705584008, 10705584009

METHOD BLANK:	5074710	Matrix:	Tissue
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Associated Lab Samples: 10705584001, 10705584002, 10705584003, 10705584004, 10705584005, 10705584006, 10705584007, 10705584008, 10705584009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11CI-PF3OUdS	ug/kg	<0.58	2.0	10/02/24 18:16	
3:3 FTCA	ug/kg	<1.1	2.5	10/02/24 18:16	
4:2 FTS	ug/kg	<0.30	2.0	10/02/24 18:16	
5:3 FTCA	ug/kg	<2.0	12.5	10/02/24 18:16	
6:2 FTS	ug/kg	<0.36	2.0	10/02/24 18:16	
7:3 FTCA	ug/kg	<2.6	12.5	10/02/24 18:16	
8:2 FTS	ug/kg	<0.44	2.0	10/02/24 18:16	
9CI-PF3ONS	ug/kg	<0.42	2.0	10/02/24 18:16	
ADONA	ug/kg	<0.38	2.0	10/02/24 18:16	
HFPO-DA	ug/kg	<0.41	2.0	10/02/24 18:16	
NEtFOSAA	ug/kg	<0.066	0.50	10/02/24 18:16	
NFDHA	ug/kg	<0.14	1.0	10/02/24 18:16	
NMeFOSAA	ug/kg	<0.18	0.50	10/02/24 18:16	
PFBA	ug/kg	<0.63	2.0	10/02/24 18:16	
PFBS	ug/kg	<0.058	0.50	10/02/24 18:16	
PFDA	ug/kg	<0.099	0.50	10/02/24 18:16	
PFDoA	ug/kg	<0.079	0.50	10/02/24 18:16	
PFDS	ug/kg	<0.11	0.50	10/02/24 18:16	
PFEESA	ug/kg	<0.15	1.0	10/02/24 18:16	
PFHpA	ug/kg	<0.10	0.50	10/02/24 18:16	
PFHpS	ug/kg	<0.083	0.50	10/02/24 18:16	
PFHxA	ug/kg	<0.062	0.50	10/02/24 18:16	
PFHxS	ug/kg	<0.11	0.50	10/02/24 18:16	
PFMBA	ug/kg	<0.16	1.0	10/02/24 18:16	
PFMPA	ug/kg	<0.16	1.0	10/02/24 18:16	
PFNA	ug/kg	0.092J	0.50	10/02/24 18:16	
PFNS	ug/kg	<0.12	0.50	10/02/24 18:16	
PFOA	ug/kg	<0.066	0.50	10/02/24 18:16	
PFOS	ug/kg	<0.11	0.50	10/02/24 18:16	
PFOSA	ug/kg	<0.072	0.50	10/02/24 18:16	
PFPeA	ug/kg	<0.18	1.0	10/02/24 18:16	
PFPeS	ug/kg	<0.099	0.50	10/02/24 18:16	
PFTeDA	ug/kg	<0.075	0.50	10/02/24 18:16	
PFTTrDA	ug/kg	<0.13	0.50	10/02/24 18:16	
PFUnA	ug/kg	<0.091	0.50	10/02/24 18:16	
13C2-PFDoA (S)	%	85	35-180	10/02/24 18:16	
13C2-PFTA (S)	%	29	20-160	10/02/24 18:16	
13C24:2FTS (S)	%	31	30-300	10/02/24 18:16	
13C26:2FTS (S)	%	99	35-300	10/02/24 18:16	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

METHOD BLANK: 5074710

Matrix: Tissue

Associated Lab Samples: 10705584001, 10705584002, 10705584003, 10705584004, 10705584005, 10705584006, 10705584007, 10705584008, 10705584009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C28:2FTS (S)	%.	152	40-365	10/02/24 18:16	
13C3-PFBS (S)	%.	48	25-190	10/02/24 18:16	
13C3-PFHxS (S)	%.	81	35-175	10/02/24 18:16	
13C3HFPO-DA (S)	%.	39	20-185	10/02/24 18:16	
13C4-PFBA (S)	%.	3	5-130	10/02/24 18:16	S0
13C4-PFHpA (S)	%.	59	25-150	10/02/24 18:16	
13C5-PFHxA (S)	%.	40	25-170	10/02/24 18:16	
13C5-PFPeA (S)	%.	15	10-185	10/02/24 18:16	
13C6-PFDA (S)	%.	83	30-150	10/02/24 18:16	
13C7-PFUdA (S)	%.	85	30-180	10/02/24 18:16	
13C8-PFOA (S)	%.	71	25-150	10/02/24 18:16	
13C8-PFOS (S)	%.	94	40-160	10/02/24 18:16	
13C8-PFOSA (S)	%.	81	25-180	10/02/24 18:16	
13C9-PFNA (S)	%.	79	35-185	10/02/24 18:16	
d3-MeFOSAA (S)	%.	93	30-250	10/02/24 18:16	
d5-EtFOSAA (S)	%.	109	30-235	10/02/24 18:16	
d7-NMeFOSE (S)	%.	40	5-160	10/02/24 18:16	

LABORATORY CONTROL SAMPLE & LCSD: 5074711

5074712

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11CI-PF3OUdS	ug/kg	22.6	30.3	24.4	134	108	50-170	22	30	
3:3 FTCA	ug/kg	30	9.1	24.0	30	80	30-140	90	30	R1
4:2 FTS	ug/kg	22.5	23.9	22.5	106	100	55-150	6	30	
5:3 FTCA	ug/kg	150	144	143	96	95	60-160	0	30	
6:2 FTS	ug/kg	22.8	23.9	22.3	105	98	60-150	7	30	
7:3 FTCA	ug/kg	150	185	151	123	101	60-200	20	30	
8:2 FTS	ug/kg	23.1	25.8	22.8	112	99	60-170	12	30	
9CI-PF3ONS	ug/kg	22.5	32.1	26.4	143	117	60-170	20	30	
ADONA	ug/kg	22.6	26.1	23.0	115	102	55-165	12	30	
HFPO-DA	ug/kg	24	22.4	22.1	93	92	60-145	1	30	
NEtFOSAA	ug/kg	6	5.8	6.0	97	100	60-145	3	30	
NFDHA	ug/kg	12	11.8	11.7	98	97	60-180	1	30	
NMeFOSAA	ug/kg	6	5.8	5.4	97	91	60-145	7	30	
PFBA	ug/kg	24	24.1	23.7	100	99	60-140	1	30	
PFBS	ug/kg	5.3	5.4	5.1	101	97	60-150	5	30	
PFDA	ug/kg	6	6.4	6.1	106	102	60-150	3	30	
PFDoA	ug/kg	6	6.3	6.0	105	101	60-140	4	30	
PFDS	ug/kg	5.8	5.5	4.9	95	85	50-140	11	30	
PFEESA	ug/kg	10.7	12.5	10.6	117	99	50-150	17	30	
PFHpA	ug/kg	6	6.1	6.3	102	105	60-145	3	30	
PFHpS	ug/kg	5.7	5.8	5.3	102	93	60-140	9	30	
PFHxA	ug/kg	6	6.1	6.0	101	100	60-160	2	30	

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QUALITY CONTROL DATA

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

LABORATORY CONTROL SAMPLE & LCSD: 5074711

		5074712								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PFHxS	ug/kg	5.5	5.4	5.4	99	98	60-155	1	30	
PFMBA	ug/kg	12	13.6	11.7	113	97	60-150	15	30	
PFMPA	ug/kg	12	5.8	10.1	49	84	25-145	53	30	R1
PFNA	ug/kg	6	6.1	6.0	101	99	60-145	2	30	
PFNS	ug/kg	5.8	5.7	5.6	100	98	45-140	2	30	
PFOA	ug/kg	6	6.1	5.8	102	97	60-150	4	30	
PFOS	ug/kg	5.6	5.5	5.5	99	98	60-160	1	30	
PFOSA	ug/kg	6	6.2	6.2	103	103	60-150	0	30	
PFPeA	ug/kg	12	12.2	11.6	102	97	60-145	5	30	
PFPeS	ug/kg	5.6	5.5	5.4	98	95	60-145	3	30	
PFTeDA	ug/kg	6	6.4	6.1	107	102	60-140	4	30	
PFTrDA	ug/kg	6	4.0	4.5	66	75	60-150	12	30	
PFUnA	ug/kg	6	6.2	6.0	104	99	60-155	4	30	
13C2-PFDoA (S)	%				89	86	35-180			
13C2-PFTA (S)	%				25	32	20-160			
13C24:2FTS (S)	%				61	133	30-300			
13C26:2FTS (S)	%				115	162	35-300			
13C28:2FTS (S)	%				126	177	40-365			
13C3-PFBS (S)	%				78	94	25-190			
13C3-PFHxS (S)	%				93	97	35-175			
13C3HFPO-DA (S)	%				74	92	20-185			
13C4-PFBA (S)	%				13	66	5-130			
13C4-PFHpA (S)	%				82	93	25-150			
13C5-PFHxA (S)	%				70	95	25-170			
13C5-PFPeA (S)	%				48	93	10-185			
13C6-PFDA (S)	%				90	90	30-150			
13C7-PFUDa (S)	%				92	94	30-180			
13C8-PFOA (S)	%				84	90	25-150			
13C8-PFOS (S)	%				93	95	40-160			
13C8-PFOSA (S)	%				118	92	25-180			
13C9-PFNA (S)	%				94	95	35-185			
d3-MeFOSAA (S)	%				87	98	30-250			
d5-EtFOSAA (S)	%				98	113	30-235			
d7-NMeFOSE (S)	%				5	40	5-160			

LABORATORY CONTROL SAMPLE: 5074713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ug/kg	3.8	4.1	107	50-170	
3:3 FTCA	ug/kg	5	5.0	99	30-140	
4:2 FTS	ug/kg	3.8	3.4	90	55-150	
5:3 FTCA	ug/kg	25	23.5	94	60-160	
6:2 FTS	ug/kg	3.8	3.5	93	60-150	
7:3 FTCA	ug/kg	25	25.9	103	60-200	
8:2 FTS	ug/kg	3.8	3.5	91	60-170	

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QUALITY CONTROL DATA

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

LABORATORY CONTROL SAMPLE: 5074713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
9CI-PF3ONS	ug/kg	3.8	4.1	110	60-170	
ADONA	ug/kg	3.8	3.8	101	55-165	
HFPO-DA	ug/kg	4	3.7	92	60-145	
NEtFOSAA	ug/kg	1	0.87	87	60-145	
NFDHA	ug/kg	2	1.7	87	60-180	
NMeFOSAA	ug/kg	1	0.95	95	60-145	
PFBA	ug/kg	4	3.8	94	60-140	
PFBS	ug/kg	0.89	0.76	86	60-150	
PFDA	ug/kg	1	0.99	99	60-150	
PFDoA	ug/kg	1	0.94	94	60-140	
PFDS	ug/kg	0.96	0.73	76	50-140	
PFEESA	ug/kg	1.8	1.6	88	50-150	
PFHpA	ug/kg	1	0.92	92	60-145	
PFHpS	ug/kg	0.95	0.77	80	60-140	
PFHxA	ug/kg	1	0.93	93	60-160	
PFHxS	ug/kg	0.92	0.85	93	60-155	
PFMBA	ug/kg	2	1.8	88	60-150	
PFMPA	ug/kg	2	1.8	91	25-145	
PFNA	ug/kg	1	0.98	98	60-145	
PFNS	ug/kg	0.96	0.88	91	45-140	
PFOA	ug/kg	1	0.87	87	60-150	
PFOS	ug/kg	0.93	0.86	93	60-160	
PFOSA	ug/kg	1	0.94	94	60-150	
PFPeA	ug/kg	2	1.8	89	60-145	
PFPeS	ug/kg	0.94	0.84	89	60-145	
PFTeDA	ug/kg	1	0.93	93	60-140	
PFTrDA	ug/kg	1	0.64	64	60-150	
PFUnA	ug/kg	1	0.92	92	60-155	
13C2-PFDoA (S)	%			85	35-180	
13C2-PFTA (S)	%			34	20-160	
13C24:2FTS (S)	%			134	30-300	
13C26:2FTS (S)	%			164	35-300	
13C28:2FTS (S)	%			178	40-365	
13C3-PFBS (S)	%			95	25-190	
13C3-PFHxS (S)	%			100	35-175	
13C3HFPO-DA (S)	%			88	20-185	
13C4-PFBA (S)	%			91	5-130	
13C4-PFHpA (S)	%			93	25-150	
13C5-PFHxA (S)	%			94	25-170	
13C5-PFPeA (S)	%			96	10-185	
13C6-PFDA (S)	%			93	30-150	
13C7-PFUdA (S)	%			93	30-180	
13C8-PFOA (S)	%			90	25-150	
13C8-PFOS (S)	%			98	40-160	
13C8-PFOSA (S)	%			89	25-180	
13C9-PFNA (S)	%			91	35-185	
d3-MeFOSAA (S)	%			98	30-250	

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QUALITY CONTROL DATA

Project: Sunfish Lake PFAS 2024
Pace Project No.: 10705584

LABORATORY CONTROL SAMPLE: 5074713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
d5-EtFOSAA (S)	%.			112	30-235	
d7-NMeFOSE (S)	%.			33	5-160	

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REPORT OF LABORATORY ANALYSIS



QUALIFIERS

Project: Sunfish Lake PFAS 2024
Pace Project No.: 10705584

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Sunfish Lake PFAS 2024

Pace Project No.: 10705584

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10705584001	SF-LMB	ASTM D2974	970123		
10705584002	SF-SF-2	ASTM D2974	970123		
10705584003	HB-YP	ASTM D2974	970123		
10705584004	HB-SF-2	ASTM D2974	970123		
10705584005	HB-SF-1	ASTM D2974	970123		
10705584006	HS-BB-1	ASTM D2974	970123		
10705584007	HS-BB-2	ASTM D2974	970123		
10705584008	HS-LMB	ASTM D2974	970123		
10705584009	SF-SF-1	ASTM D2974	970123		
10705584001	SF-LMB	Pace SOP	483080		
10705584002	SF-SF-2	Pace SOP	483080		
10705584003	HB-YP	Pace SOP	483080		
10705584004	HB-SF-2	Pace SOP	483080		
10705584005	HB-SF-1	Pace SOP	483080		
10705584006	HS-BB-1	Pace SOP	483080		
10705584007	HS-BB-2	Pace SOP	483080		
10705584008	HS-LMB	Pace SOP	483080		
10705584009	SF-SF-1	Pace SOP	483080		
10705584001	SF-LMB	EPA 1633 DRAFT	971075	EPA 1633 DRAFT	971568
10705584002	SF-SF-2	EPA 1633 DRAFT	971075	EPA 1633 DRAFT	971568
10705584003	HB-YP	EPA 1633 DRAFT	971075	EPA 1633 DRAFT	971568
10705584004	HB-SF-2	EPA 1633 DRAFT	971075	EPA 1633 DRAFT	971568
10705584005	HB-SF-1	EPA 1633 DRAFT	971075	EPA 1633 DRAFT	971568
10705584006	HS-BB-1	EPA 1633 DRAFT	971075	EPA 1633 DRAFT	971568
10705584007	HS-BB-2	EPA 1633 DRAFT	971075	EPA 1633 DRAFT	971568
10705584008	HS-LMB	EPA 1633 DRAFT	971075	EPA 1633 DRAFT	971568
10705584009	SF-SF-1	EPA 1633 DRAFT	971075	EPA 1633 DRAFT	971568

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Pace® Location Requested (City/State):						CHAIN-OF-CUSTODY Analytical Request Document Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields																							
Company Name: WSN Street Address: 178 9th St E STE200 St. Paul, MN 55101 Customer Project #: 026096 Project Name: Sunfish Lake PFAS 2024 Site Collection Info/Facility ID (as applicable)						Contact/Report To: Dan O'Neill Phone #: 612-400-5382 E-Mail: doneill@wsbeng.com Cc E-Mail: thavranek@wsbeng.com Invoice to: WSB Invoice E-mail: wsbaccounting@wsbeng.com Purchase Order # (if applicable): Quote #: County / State origin of sample(s)						 Scan QR Code for instructions																	
Time Zone Collected [] AK [] PT [] MT [] CT [] ET						Specify Container Size **						**Container Size (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other.																	
Data Deliverables:						Identify Container Preservative Type***						*** Preservative Types (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other																	
[] Level II [] Level III [] Level IV [] EQUIS [] Other _____						Regulatory Program (DW, RCRA, etc.) as applicable Reportable [] Yes [] No Rush (Pre-approval required): [] Same Day [] 1 Day [] 2 Day [] 3 Day Other _____ Date Results Requested: _____ Field Filtered (if applicable). [] Yes [] No Analysis						Analysis Requested																	
* Matrix Codes (Insert in Matrix box below) Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OI), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)						PFAS (1633)						Proj Mgr AcctNum / Client ID Table # Profile / Template Prelog / Bottle Ord ID Sample Comment																	
Customer Sample ID						Matrix *		Comp / Grab		Composite Start		Collected or Composite End		# Cont.		Residual Chlorine													
										Date		Time		Date		Time													
SF-LMB						TS		G				8-21-24		13:35				X											
SF-SF-2						TS		C				8-21-24		14:02				X											
HB-YP						TS		G				8-21-24		11:07				X											
HB-SF-2						TS		C				8-21-24		11:31				X											
HB-SF-1						TS		C				8-21-24		11:24				X											
HS-BB-1						TS		C				8-21-24		8:49				X											
HS-BB-2						TS		C				8-21-24		9:31				X											
HS-LMB						TS		G				8-21-24		9:01				X											
SF-SF-1						TS		C				8-21-24		13:21				X											
Additional Instructions from Pace®						Collected By Printed Name Signature						Customer Remarks / Special Conditions / Possible Hazards: # Coolers Thermometer ID Correction Factor (°C) Obs. Temp. (°C) Corrected Temp. (°C) I On Ice 1 T9 TR -0.14 -0.16 Y																	
Relinquished by/Company (Signature) Waltco						Date/Time 08/17/2024 08:10						Received by/Company (Signature) Michele Vonsombeck Pace						Date/Time 8-26-24 9:30						Reading Number 3480363-1					
Relinquished by/Company (Signature)						Date/Time						Received by/Company (Signature)						Date/Time						Delivered by [] In-Person [] Courier					
Relinquished by/Company (Signature)						Date/Time						Received by/Company (Signature)						Date/Time						[] FedEx [] UPS [] Other					
Relinquished by/Company (Signature)						Date/Time						Received by/Company (Signature)						Date/Time						Page: of					

Effective Date: 8/16/2022

Client Name: WSN

All containers needing preservation have been checked and noted below.

Lab Lot# of pH paper:

Sample Preservation Receipt Form

Project #

☐ Yes☐ No☒ N/A

Lab Std #/ID of preservation (if pH adjusted).

Initial when completed: MR Date/Time:

Page Lab #	Glass						Plastic						Vials					Jars				General				VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)	
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN 1	GN 2						
001																																	2.5 / 5
002																																	2.5 / 5
003																																	2.5 / 5
004																																	2.5 / 5
005																																	2.5 / 5
006																																	2.5 / 5
007																																	2.5 / 5
008																																	2.5 / 5
009																																	2.5 / 5
010																																	2.5 / 5
011																																	2.5 / 5
012																																	2.5 / 5
013																																	2.5 / 5
014																																	2.5 / 5
015																																	2.5 / 5
016																																	2.5 / 5
017																																	2.5 / 5
018																																	2.5 / 5
019																																	2.5 / 5
020																																	2.5 / 5

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

Headspace in VOA Vials (>6mm): ☐ Yes ☐ No ☐ N/A *If yes look in headspace column

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	VG9C	40 mL clear ascorbic w/ HCl	JGFU	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG5U	100 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH + Zn	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres					GN 1	
						GN 2	

Page 1 of 2

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name:

WSN

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Walco

☐ Client ☐ Pace Other: _____

Tracking #:

3980363-1

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Thermometer Used SR - 140 Type of Ice: Wet Blue Dry None ☐ Meltwater Only

Cooler Temperature Uncorr: 0.0 ICorr: 0.0

Temp Blank Present: ☒ yes ☐ no

Biological Tissue is Frozen: ☐ yes ☒ no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C if shipped on Dry Ice

Person examining contents:

Date: 08/27/2024 Initials: MJS

Labeled By Initials: _____

Chain of Custody Present: ☒ Yes ☐ No ☐ N/A

1.

Chain of Custody Filled Out: ☒ Yes ☐ No ☐ N/A

2.

Chain of Custody Relinquished: ☒ Yes ☐ No ☐ N/A

3.

Sampler Name & Signature on COC: ☐ Yes ☐ No ☒ N/A

4.

Samples Arrived within Hold Time: ☒ Yes ☐ No

5.

- DI VOA Samples frozen upon receipt ☐ Yes ☐ No

Date/Time:

Short Hold Time Analysis (<72hr): ☐ Yes ☒ No

6.

Rush Turn Around Time Requested: ☐ Yes ☒ No

7.

Sufficient Volume: ☒ Yes ☐ No

8.

For Analysis: ☒ Yes ☐ No MS/MSD: ☐ Yes ☒ No ☐ N/A

Correct Containers Used: ☒ Yes ☐ No

9.

Correct Type: Pace Green Bay, Pace IR, Non-Pace

Containers Intact: ☒ Yes ☐ No

10.

Filtered volume received for Dissolved tests ☐ Yes ☐ No ☒ N/A

11.

Sample Labels match COC: ☒ Yes ☐ No ☐ N/A

12.

-Includes date/time/ID/Analysis Matrix: Biota

Trip Blank Present: ☐ Yes ☐ No ☒ N/A

13.

Trip Blank Custody Seals Present ☐ Yes ☐ No ☒ N/A

Pace Trip Blank Lot # (if purchased): _____

Client Notification/ Resolution:

If checked, see attached form for additional comments ☐

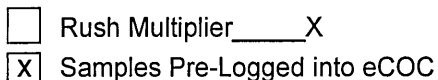
Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample log in

Page 2 of 2

4028321



Cert. Needed: ☒ Yes ☐ No

Owner Received Date: 8/27/2024 Results Requested By: 9/11/2024

[illegible]

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Effective Date: 8/16/2022

Client Name: WSN

Sample Preservation Receipt Form

Project #

40283211

All containers needing preservation have been checked and noted below:

☐ Yes ☐ No

N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed: MPJ Date/Time:

Pace Lab #	Glass						Plastic					Vials					Jars				General				VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)	
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JG9U	JG9U	WG9U	WPFU	SP5T								ZPLC
001																																2.5 / 5
002																																2.5 / 5
003																																2.5 / 5
004																																2.5 / 5
005																																2.5 / 5
006																																2.5 / 5
007																																2.5 / 5
008																																2.5 / 5
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018																																2.5 / 5
019																																2.5 / 5
020																																2.5 / 5

Exceptions to preservation check VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____

Headspace in VOA Vials (>6mm) . ☐ Yes ☐ No ☐ N/A *If yes look in headspace column

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	VG9C	40 mL clear ascorbic w/ HCl	JG9U	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG5U	100 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH + Zn	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres					GN 1	
						GN 2	

Page 1 of 2

Sample Condition Upon Receipt Form (SCUR)

Client Name: WSN Project #: WO# : 40283211

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Waltco

☐ Client ☐ Pace Other: _____

Tracking #: 3980363-1

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____

Thermometer Used SR - 140 Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Meltwater Only

Cooler Temperature Uncorr: 0.0 ICorr: 0.0

Temp Blank Present: ☒ yes ☐ no Biological Tissue is Frozen: ☐ yes ☒ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice

Person examining contents:	
Date: <u>08/27/2024</u>	Initials: <u>MJS</u>
Labeled By Initials: <u>GW</u>	

Chain of Custody Present: ☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out: ☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished: ☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC: ☒ Yes ☐ No ☐ N/A	4. <u>Pace IR WO MJS 08/27/2024</u>
Samples Arrived within Hold Time: ☒ Yes ☐ No	5.
- DI VOA Samples frozen upon receipt ☐ Yes ☐ No	Date/Time:
Short Hold Time Analysis (<72hr): ☐ Yes ☒ No	6.
Rush Turn Around Time Requested: ☐ Yes ☒ No	7.
Sufficient Volume: ☒ Yes ☐ No MS/MSD: ☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used: ☒ Yes ☐ No	9.
Correct Type: Pace Green Bay, Pace IR, <u>Non-Pace</u>	
Containers Intact: ☒ Yes ☐ No	10.
Filtered volume received for Dissolved tests ☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC: ☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>Biota</u>	
Trip Blank Present: ☐ Yes ☐ No ☒ N/A	13.
Trip Blank Custody Seals Present ☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased): _____	

Client Notification/ Resolution: _____ If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

Internal Transfer Chain of Custody

40283211

Pace



☐ Rush Multiplier ☒ X
☒ Samples Pre-Logged into eCOC

State Of Origin: MN

Cert. Needed: ☒ Yes ☐ No

Workorder: 10705584

Workorder Name: Sunfish Lake PFAS 2024

Owner Received Date: 8/27/2024 Results Requested By: 9/11/2024

Report To:		Subcontract To:		Requested Analysis																																													
Annika Asp Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700		Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		W0#: 10705584 10705584																																													
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unpreserved	Preserved Containers					Fish Tissue Homogenization (Pace GB)	LAB USE ONLY																																				
1	SF-LMB	PS	8/21/2024 13:35	10705584001	Solid	1							X	001																																			
2	SF-SF-2	PS	8/21/2024 14:02	10705584002	Solid	1							X	002																																			
3	HB-YP	PS	8/21/2024 11:07	10705584003	Solid	1							X	003																																			
4	HB-SF-2	PS	8/21/2024 11:31	10705584004	Solid	1							X	004																																			
5	HB-SF-1	PS	8/21/2024 11:24	10705584005	Solid	1							X	005																																			
6	HS-BB-1	PS	8/21/2024 08:49	10705584006	Solid	1							X	006																																			
7	HS-BB-2	PS	8/21/2024 09:31	10705584007	Solid	1							X	007																																			
8	HS-LMB	PS	8/21/2024 09:01	10705584008	Solid	1							X	008																																			
9	SF-SF-1	PS	8/21/2024 13:21	10705584009	Solid	1							X	009																																			
Transfers														Comments																																			
Released By	Date/Time	Received By	Date/Time	Please send samples to Pace Minneapolis once homogenized																																													
Walter	8/21/2024 10:05 AM	Matthew Vonnahme	8/27/2024 08:10 AM																																														
Upchurch	9/13/2024 11:00 AM	Patricia Pore	08/27/2024 15:16																																														
Cooler Temperature on Receipt -24.5 °C														Custody Seal ☒ or N												Received on Ice ☒ or N												Samples Intact ☒ or N											

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

CLIENT NAME: Lee, Kevin PROJECT #: 2985913-1

COURIER: ☐ Client ☒ Commercial ☐ FedEx ☐ Pace ☐ Speedee ☐ UPS

TRACKING NUMBER: 2985913-1 See Exceptions form ENV-FRM-MIN4-0142

MO#: 10705584
PM: AKA
CLIENT: MSB
Due Date: 09/11/24

Custody Seal on Cooler/Box Present: ☒ YES ☐ NO Seals Intact: ☒ YES ☐ NO Biological Tissue Frozen: ☒ YES ☐ NO
Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☐ None ☒ Other Temp Blank: ☐ YES ☒ NO Type of Ice: ☐ Blue ☒ Dry ☐ Wet
Thermometer: ☒ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ T10 (0339252) (1710)

Did Samples Originate in West Virginia: ☐ YES ☒ NO
Correction Factor: 1.0
Cooler Temp Read w/Temp Blank: 4.4 °C
Cooler Temp Corrected w/Temp Blank: 4.4 °C
Average Corrected Temp (no Temp Blank Only): -2.4 °C
Were All Container Temps taken: ☐ YES ☐ NO ☒ N/A
See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: ☒ N/A - Water Sample/Other (describe):
Did Samples Originate from one of the following states (check maps) - AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☒ NO
Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☒ NO
Initials & Date of Person Examining Contents: AKA 09/11/24

NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.
LOCATION (check one): ☐ DULUTH ☒ MINNEAPOLIS ☐ VIRGINIA
Chain of Custody Present and Filled Out? ☒ YES ☐ NO
Chain of Custody Relinquished? ☒ YES ☐ NO
Sampler Name and/or Signature on COC? ☒ YES ☐ NO

Samples Arrived within Hold Time? ☒ YES ☐ NO
Short Hold Time Analysis (<72 hr)? ☐ YES ☒ NO
Rush Turn Around Time Requested? ☒ YES ☐ NO
Sufficient Sample Volume? ☒ YES ☐ NO
Correct Containers Used? ☒ YES ☐ NO
- Pace Containers Used? ☒ YES ☐ NO
Containers Intact? ☒ YES ☐ NO
Field Filtered Volume Received for Dissolved Tests? ☒ YES ☐ NO

Is sufficient information available to reconcile the samples to the COC? ☒ YES ☐ NO
NOTE: If ID/Date/Time don't match fill out section 11.
Matrix: ☐ Oil ☐ Soil ☐ Water ☒ Other
All containers needing acid/base preservation have been checked? ☒ YES ☐ NO
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO₃, H₂SO₄, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) ☒ YES ☐ NO
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS ☒ YES ☐ NO
NOTE: If adding preservation to the container, verify with the PMI first. Clients may require adding preservative to the field and equipment blanks when this occurs.

Headspace in Methyl Mercury Container? ☒ YES ☐ NO
Extra labels present on soil VOA or WIDRO containers? ☒ YES ☐ NO
Headspace in VOA Vials (greater than 6mm)? ☒ YES ☐ NO
Trip Blanks Present? ☒ YES ☐ NO
Trip Blank Custody Seals Present? ☒ YES ☐ NO

CLIENT NOTIFICATION / RESOLUTION
Person Contacted: _____ Date & Time: _____
Comments / Resolution: _____

Project Manager Review: Anna O'Connell
Date: 9/9/2024
Labeled By: MSB
Line: 5
NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEC Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

FIELD DATA REQUIRED: ☐ YES ☐ NO
Pace Trip Blank Lot # (if purchased): _____
See Exceptions form ENV-FRM-MIN4-0140 ☐ 15.
See Exceptions form ENV-FRM-MIN4-0142 ☐ 13.
See Exceptions form ENV-FRM-MIN4-0142 ☐ 14.
See Exceptions form ENV-FRM-MIN4-0142 ☐ 15.

PH Paper Lot # _____
Residual Chlorine _____
0-6 Roll _____
0-6 Strip _____
0-14 Strip _____
Positive for Residual Chlorine: ☐ YES ☒ NO
HNO₃ ☐ H₂SO₄ ☐ NaOH ☐ Zinc Acetate ☐ YES ☒ NO

1. If NO, write ID/Date/Time of container below: _____
See Exceptions form ENV-FRM-MIN4-0142 ☐ 12. Sample #: _____
See Exceptions form ENV-FRM-MIN4-0142 ☐ 13.
See Exceptions form ENV-FRM-MIN4-0142 ☐ 14.
See Exceptions form ENV-FRM-MIN4-0142 ☐ 15.

Effective Date: 05/10/24
Page 1 of 1
Pace Analytical Services, LLC (PAS)

No Temp Blank		
Read Temp	Corrected Temp	Average temp
-21.12	-21.10C	-24.50C
-26.12	-26.13C	
-21.12	-21.10C	
-29.87	-29.86C	

If anything is OVER 6.0°C, you MUST document containers in this section HERE

PM Notified of Out of Temp Cooler?	☐ YES ☐ NO
If yes, indicate who was contacted, date and time.	
If no, indicate reason why.	

Multiple Cooler Project?	☐ YES ☐ NO

[illegible][illegible][illegible]

Comments:

Pace® Location Requested (City/State):						CHAIN-OF-CUSTODY Analytical Request Document Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields							
Company Name: WSN						Contact/Report To: Dan O'Neill							
Street Address: 178 9th St E STE200 St. Paul, MN 55101						Phone #: 612-400-5382							
Customer Project #: 026096						E-Mail: doneill@wsbg.com							
Project Name: Sunfish Lake PFAS 2024						Cc E-Mail: thavranek@wsbg.com							
Site Collection Info/Facility ID (as applicable)						Invoice to: VSB							
						Invoice E-mail:							
						wsbaccounting@wsbg.com							
						Purchase Order # (if applicable):							
						Quote #:							
Time Zone Collected [] AK [] PT [] MT [] CT [] ET						County / State origin of sample(s)							
Data Deliverables:						Regulatory Program (DW, RCRA, etc.) as applicable							
[] Level II [] Level III [] Level IV						Rush (Pre-approval required): [] Same Day [] 1 Day [] 2 Day [] 3 Day Other _____							
[] EQUIS						DW PWSID # or WW Permit # as applicable							
[] Other _____						Date Results Requested:							
						Field Filtered (if applicable) [] Yes [] No							
						Analysis.							
Matrix Codes (Insert in Matrix box below) Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OI), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)													
Customer Sample ID		Matrix *	Comp / Grab	Composite Start		Collected or Composite End		# Cont.	Residual Chlorine		PFAS (1633)		
				Date	Time	Date	Time		Result	Units			
SF-LMB		TS	G			8-21-24	13:35				X		
SF-SF-2		TS	C			8-21-24	14:02				X		
HB-YP		TS	G			8-21-24	11:07				X		
HB-SF-2		TS	C			8-21-24	11:31				X		
HB-SF-1		TS	C			8-21-24	11:24				X		
HS-BB-1		TS	C			8-21-24	8:49				X		
HS-BB-2		TS	C			8-21-24	9:31				X		
HS-LMB		TS	G			8-21-24	9:01				X		
SF-SF-1		TS	C			8-21-24	13:21				X		
Additional Instructions from Pace*													
Collected by: Printed Name: Signature:													
Customer Remarks / Special Conditions / Possible Hazards: (-0.2) EV 8-26-24 # Coolers: 1 Thermometer ID: TR Correction Factor (°C): Obs Temp (°C): Corrected Temp (°C): [-] On Ice: Y													
Relinquished by/Company (Signature) W. H. Fred		Date/Time 08/17/2024 08:10		Received by/Company (Signature) Michele Vansombeck				Date/Time 08/17/2024 08:10		Received by/Company (Signature) Pace			
Relinquished by/Company (Signature)		Date/Time		Received by/Company (Signature)				Date/Time		Received by/Company (Signature)			
Relinquished by/Company (Signature)		Date/Time		Received by/Company (Signature)				Date/Time		Received by/Company (Signature)			
Relinquished by/Company (Signature)		Date/Time		Received by/Company (Signature)				Date/Time		Received by/Company (Signature)			
Page: of													

Effective Date: 8/16/2022

Client Name: WSN

Sample Preservation Receipt Form

Project #

40283211

All containers needing preservation have been checked and noted below:

☐ Yes☐ No☒ N/A

Lab Lot# of pH paper:

Lab Std #/ID of preservation (if pH adjusted):

Initial when completed: MPJ Date/Time:

Pace Lab #	Glass						Plastic						Vials					Jars				General				VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC							
001																																2.5 / 5
002																																2.5 / 5
003																																2.5 / 5
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018																																2.5 / 5
019																																2.5 / 5
020																																2.5 / 5

Exceptions to preservation check VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

Headspace in VOA Vials (>6mm) . ☐ Yes ☐ No ☐ N/A *If yes look in headspace column

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	VG9C	40 mL clear ascorbic w/ HCl	JGFU	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG5U	100 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH + Zn	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres					GN 1	
						GN 2	

Page 1 of 2

DC# Title: ENV-FRM-GBAY-0014 v03_SCUR
Effective Date: 8/17/2022

Sample Condition Upon Receipt Form (SCUR)

Project #:

MO#: 40283211



40283211

Client Name: WSN
Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☒ Walco

Tracking #: 3980363-1
Client ☐ Pace ☐ Other: ☐

Custody Seal on Cooler/Box Present: ☒ yes ☐ no
Seals intact: ☒ yes ☐ no

Custody Seal on Samples Present: ☒ yes ☐ no
Seals intact: ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Thermometer Used SR - 148
Uncorr: ☐ Corr: 0.0

Temp Blank Present: ☒ yes ☐ no
Biological Tissue is Frozen: ☐ yes ☒ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice

Chain of Custody Present: ☒ yes ☐ no

Chain of Custody Filled Out: ☒ yes ☐ no

Chain of Custody Relinquished: ☒ yes ☐ no

Sampler Name & Signature on COC: ☒ yes ☐ no

Samples Arrived within Hold Time: ☒ yes ☐ no

- DI VOA Samples frozen upon receipt: ☒ yes ☐ no

Short Hold Time Analysis (<72hr): ☒ yes ☐ no

Rush Turn Around Time Requested: ☒ yes ☐ no

Sufficient Volume: ☒ yes ☐ no

For Analysis: ☒ yes ☐ no

MS/MSD: ☒ yes ☐ no

Correct Containers Used: ☒ yes ☐ no

Correct Type: Pace Green Bay, Pace IR, Non-Pace

Containers Intact: ☒ yes ☐ no

Filtered volume received for Dissolved tests: ☒ yes ☐ no

Sample Labels match COC: ☒ yes ☐ no

-Includes date/time/ID/Analysis Matrix: ☒ yes ☐ no

Trip Blank Present: ☒ yes ☐ no

Trip Blank Custody Seals Present: ☒ yes ☐ no

Pace Trip Blank Lot # (if purchased): ☒ yes ☐ no

Client Notification/Resolution: ☐ If checked, see attached form for additional comments

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

PM Review is documented electronically in LIMS. By releasing the project, the PM acknowledges they have reviewed the sample logi