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800-278-1254 • www.nlslab.com

September 13, 2024

Mark Pauli
Wisconsin Dept of Natural Res - Madison
107 Sutliff Ave
Rhinelander, WI 54501

Project: 2024 0.5 Expanded Zone (Starks/Stella)
Project Number: Christopher J. Barnes - 4011 Snowden Road
Work Order: CC10340
Received: 09/04/24

Enclosed are the results of analyses for samples received by our laboratory on 9/4/2024. If you have any questions concerning this report, please feel free to contact a client service representative at clientservices@nlslab.com.

Sincerely,

A handwritten signature in black ink that reads "Steven M. Hefter".

Steven M. Hefter For Client Services
Northern Lake Service, Inc.



Wisconsin Dept of Natural Res - Madison
107 Sutliff Ave
Rhineland, WI 54501

Project: 2024 0.5 Expanded Zone (Starks/Stella)
Project Number: Christopher J. Barnes - 4011 Snowden Road
Project Manager: Mark Pauli

Reported:
9/13/24 14:50

Work Order:
CC10340

Sample Summary

Descriptions of all qualifiers listed throughout this report can be found on the Qualifiers and Definitions Page.

Lab ID	Sample	Matrix	Qualifiers	Date Sampled	Date Received
CC10340-01	Pressure Tank	DW		9/3/24 14:00	9/4/24 12:15
CC10340-02	Pressure Tank Field Blank	DW		9/3/24 14:00	9/4/24 12:15



Wisconsin Dept of Natural Res - Madison 107 Sutliff Ave Rhineland, WI 54501	Project: 2024 0.5 Expanded Zone (Starks/Stella) Project Number: Christopher J. Barnes - 4011 Snowden Road Project Manager: Mark Pauli	Reported: 9/13/24 14:50	Work Order: CC10340
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Sample Results

Sample: Pressure Tank
CC10340-01 (DW) Sampled: 09/03/24 14:00

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.60	2.0		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.92	3.0		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.80	2.6		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		1.8	6.0		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		3.4	11		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		3.8	13		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		1.4	4.8		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		1.1	3.6		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		1.2	4.0		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	64		1.1	3.6		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	59		1.1	3.6		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	1.5	J	1.2	4.2		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		1.0	3.4		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	95		0.92	3.0		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		0.94	3.2		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		1.1	3.6		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		1.1	3.6		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		1.0	3.4		ng/L	9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFHxA	85%		Limits: 70-130%				9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	87%		Limits: 70-130%				9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	92%		Limits: 70-130%				9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	87%		Limits: 70-130%				9/12/24 5:31	9/12/24 20:57	JPW	EPA 537.1, Rev 2.0	2



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Sample: Pressure Tank Field Blank

CC10340-02 (DW) Sampled: 09/03/24 14:00

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.31	1.0		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.47	1.5		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.41	1.3		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.93	3.1		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	5.8		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.9	6.4		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		0.72	2.4		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.54	1.8		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.62	2.0		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		0.54	1.8		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		0.56	1.8		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		0.63	2.1		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.52	1.7		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	ND		0.47	1.5		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		0.48	1.6		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.54	1.8		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		0.54	1.8		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.52	1.7		ng/L	9/12/24 5:31	9/12/24 21:23	JPW	EPA 537.1, Rev 2.0	2
<i>Surrogate: (SURR) C13-PFHxA</i>	<i>90%</i>				<i>Limits: 70-130%</i>		<i>9/12/24 5:31</i>	<i>9/12/24 21:23</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) C13-HFPODA</i>	<i>88%</i>				<i>Limits: 70-130%</i>		<i>9/12/24 5:31</i>	<i>9/12/24 21:23</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) C13-PFDA</i>	<i>90%</i>				<i>Limits: 70-130%</i>		<i>9/12/24 5:31</i>	<i>9/12/24 21:23</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) d5-NEtFOSAA</i>	<i>87%</i>				<i>Limits: 70-130%</i>		<i>9/12/24 5:31</i>	<i>9/12/24 21:23</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>



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List of Certifications

Code	Description	Number	Expires
2	NLS (Crandon) WDNR Laboratory ID No.	721026460	8/31/25



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Qualifiers and Definitions

Item	Definition
J	Result is between LOD and LOQ and considered to be within a region of less-certain quantitation.
ND	Analyte NOT DETECTED at or above the LOD or MRL.
LOD	Limit of Detection.
LOQ	Limit of Quantitation.
NA	Not Applicable.
Dry	Dry Weight Basis.
Wet	Wet Weight Basis.
% Dry	Equal to: (mg/kg dry) / 10000.
1000 ug/L	Equal to: 1 mg/L.
MCL	Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.
RPD	Relative Percent Difference.
%REC	Percent Recovery.
Source	Sample that was matrix spiked or duplicated.

All LOD/LOQs adjusted to reflect preparation volumes, dilutions, and/or solids content.

Sample Collection Record

Town of Stella-Starks Expanded PFAS (537.1) Sampling Project

Return your sample no later than 2 days after collection to:

Northern Lake Service
400 N Lake Ave
Crandon, WI 54520

Please provide the following information:

Name: Chris Barnes CSbarnes74@gmail.com

Address: 4011 Snowden Rd

City/State/Zip: Rhinelanders, WI 54501

Phone: 563 232-4985

Sample Collection Date: 9/3/24 Sample Collection Time: 2 00 AM/PM (AM)

Sample Collection Location (ex. Kitchen Sink): Pressure Tank

Sample Collected By (Signature): *Chris Barnes*

Per EPA 537.1, each sample set **must be accompanied by a field blank. The purpose of the field blank is to allow for the identification of potential contamination during sample collection and handling.

Final results will be reported directly to the Wisconsin DNR. WDNR will review, interpret, and inform residents of further action. **DO NOT CONTACT NORTHERN LAKE SERVICE DIRECTLY FOR SAMPLE RESULTS.**

CC10340



Laboratory use only:

Received at NLS by (Signature): *[Signature]* Date/Time: 9/4/2024 12:15

Method of Delivery: Speedee Condition (on ice / no ice) Blue Ice

Receiving Temperature (°C) 11.2° Thermometer # 13

(*) >6°C over temp

Lot #s ✓