



Northern Lake Service, Inc • 400 N Lake Ave • Crandon, WI 54520
800-278-1254 • www.nlslab.com

July 30, 2024

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

Project: 2024 0.5 Expanded Zone (Starks/Stella)
Project Number: Gary Paulson - 3132 Maple Road
Work Order: CC07875
Received: 07/17/24

Enclosed are the results of analyses for samples received by our laboratory on 7/17/2024. 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, appearing to read "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: Gary Paulson - 3132 Maple Road
Project Manager: Mark Pauli

Reported:
7/30/24 9:29

Work Order:
CC07875

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 |
|------------|--------------------------|--------|------------|---------------|---------------|
| CC07875-01 | Kitchen Sink | DW | | 7/16/24 21:50 | 7/17/24 9:29 |
| CC07875-02 | Kitchen Sink Field Blank | DW | | 7/16/24 21:50 | 7/17/24 9:29 |



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Sample Results

Sample: Kitchen Sink

CC07875-01 (DW) Sampled: 07/16/24 21:50

| 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 | | 0.32 | 1.1 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS) | ND | | 0.49 | 1.6 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | | 0.43 | 1.4 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| hexafluoropropylene oxide dimer acid (HFPO DA) | ND | | 0.97 | 3.2 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA) | ND | | 1.8 | 6.1 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA) | ND | | 2.0 | 6.7 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorobutanesulfonic acid (PFBS) | ND | | 0.76 | 2.6 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorodecanoic acid (PFDA) | ND | | 0.56 | 1.9 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorododecanoic acid (PFDoA) | ND | | 0.65 | 2.1 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluoroheptanoic acid (PFHpA) | 1.4 | J | 0.56 | 1.9 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorohexanoic acid (PFHxA) | 1.4 | J | 0.59 | 1.9 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorohexanesulfonic acid (PFHxS) | ND | | 0.66 | 2.2 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorononanoic acid (PFNA) | ND | | 0.54 | 1.8 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorooctanoic acid (PFOA) | 2.3 | | 0.49 | 1.6 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorooctanesulfonic acid (PFOS) | ND | | 0.50 | 1.7 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorotetradecanoic acid (PFTA) | ND | | 0.56 | 1.9 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorotridecanoic acid (PFTTrDA) | ND | | 0.56 | 1.9 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluoroundecanoic acid (PFUnA) | ND | | 0.54 | 1.8 | | ng/L | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| Surrogate: (SURR) C13-PFHxA | 88% | | Limits: 70-130% | | | | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| Surrogate: (SURR) C13-HFPODA | 81% | | Limits: 70-130% | | | | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| Surrogate: (SURR) C13-PFDA | 78% | | Limits: 70-130% | | | | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |
| Surrogate: (SURR) d5-NEtFOSAA | 84% | | Limits: 70-130% | | | | 7/18/24 5:54 | 7/18/24 22:33 | JPW | EPA 537.1, Rev 2.0 | 2 |



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Sample: Kitchen Sink Field Blank

CC07875-02 (DW) Sampled: 07/16/24 21:50

| 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 | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS) | ND | | 0.48 | 1.6 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | ND | | 0.42 | 1.4 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| hexafluoropropylene oxide dimer acid (HFPO DA) | ND | | 0.95 | 3.1 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA) | ND | | 1.8 | 5.9 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA) | ND | | 2.0 | 6.6 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorobutanesulfonic acid (PFBS) | ND | | 0.74 | 2.5 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorodecanoic acid (PFDA) | ND | | 0.55 | 1.9 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorododecanoic acid (PFDoA) | ND | | 0.64 | 2.1 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluoroheptanoic acid (PFHpA) | ND | | 0.55 | 1.9 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorohexanoic acid (PFHxA) | ND | | 0.57 | 1.9 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorohexanesulfonic acid (PFHxS) | ND | | 0.65 | 2.2 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorononanoic acid (PFNA) | ND | | 0.53 | 1.8 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorooctanoic acid (PFOA) | ND | | 0.48 | 1.6 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorooctanesulfonic acid (PFOS) | ND | | 0.49 | 1.7 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorotetradecanoic acid (PFTA) | ND | | 0.55 | 1.9 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluorotridecanoic acid (PFTTrDA) | ND | | 0.55 | 1.9 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| perfluoroundecanoic acid (PFUnA) | ND | | 0.53 | 1.8 | | ng/L | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| Surrogate: (SURR) C13-PFHxA | 86% | | Limits: 70-130% | | | | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| Surrogate: (SURR) C13-HFPODA | 90% | | Limits: 70-130% | | | | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| Surrogate: (SURR) C13-PFDA | 83% | | Limits: 70-130% | | | | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |
| Surrogate: (SURR) d5-NEtFOSAA | 76% | | Limits: 70-130% | | | | 7/22/24 5:47 | 7/23/24 16:13 | JPW | EPA 537.1, Rev 2.0 | 2 |



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List of Certifications

| Code | Description | Number | Expires |
|-------------|--------------------------------------|---------------|----------------|
| 2 | NLS (Crandon) WDNR Laboratory ID No. | 721026460 | 8/31/24 |



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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:

Mailing Address

Northern Lake Service
400 N Lake Ave
Crandon, WI 54520

*53 FINCH CT
Naperville, IL
60565
gpaulson53@gmail.com*

Please provide the following information:

Name: GARY PAULSON

Address: 3132 Maple Rd

City/State/Zip: Rhineland, WI 54501

Phone: 630-235-8039

Sample Collection Date: 7-16-2024 Sample Collection Time: 9:50 AM/PM

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

Sample Collected By (Signature): *Gary Paulson*

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.**

CC07875



Laboratory use only:

Received at NLS by (Signature): *[Signature]* Date/Time: 7/17/2024 0929

Method of Delivery: Hand delivery Condition (on ice / no ice) Blue ice packs

Receiving Temperature (°C) 5.0 Thermometer # 10