

444 21st Street South · La Crosse, Wisconsin · 54601

June 30, 2021

David Rozeboom DNR Service Center 1300 W Clairemont Ave. Eau Claire, WI 54701

Re: Private Well Sampling Results Letters – April 16, 2021 through June 30, 2021

La Crosse Airport PFAS Investigation

French Island, La Crosse, WI WDNR BRRTS # 02-32-587347

Dear Mr. Rozeboom:

Please find attached one (1) letter to property owners and occupants conveying the PFAS results of the private well sampling on French Island. This represents all lab reports received and letters sent between April 16 and June 22, 2021, for properties where the City has sampled private wells as part of its site investigation of PFAS related to the La Crosse Regional Airport. The attached table provides, for the private well sampling point, the sampling point number keyed to tax parcel number, address, owner, occupant, well information (where available/obtained), sampling date, lab report date, results letter and email dates, and the date the occupant signed the bottled water agreement as applicable.

Where re-sampling was conducted, it was conducted based on these criteria: Wells were re-sampled if original results were equal to or greater than 75% of a proposed enforcement standard for any PFAS compound. Some private wells were resampled because they were outliers, otherwise anomalous; or the owner requested and paid for resampling.

Please me let me know if you have any questions or require additional information.

Sincerely,

John C. Storlie, PG

John C. Here

Principal Consultant Direct: 608-433-9389 Cell: 608-769-2433

John.storlie@theOSgrp.com

Attachments: Table - Private Well Sampling Points

Private well results letters

Cc: Mayor Reynolds (w/ table only)

Matt Gallager (w/ table only)

Private Well Sampling Points La Crosse Airport PFAS Investigation Results received 4/16/2021 through 6/22/21

| | | | Private | | | | OWNER | | | | | | | Ground | | | | | | | Resample? | | | | | |
|---------|------------|------------|----------|------------------|----------|-----------|----------------|---------------|-----------|-------|--------------|--------------|----------------|---------------|----------|-----------|------------|------------|-----------|-----------|------------|----------|----------|----------|-----------|-----------|
| Samplin | 3 | | Well | | | | Agreement | Occupant Name | Completed | | Well Screen | Depth mid pt | | Surface Elev. | | | | | Results | Bottled | Planned | Resample | Post- | Lab | Results 2 | Results 2 |
| Point | Tax Parcel | 1 | Sampling | | Property | Owner | obtained? Date | (if diff from | Sampling | | interval (ft | Screen (ft | Static water | (ft) (+/- 0.5 | SWL Elev | Elev. Mid | Lab Report | Results e- | Letter | Water | date on or | Complete | Treatmen | Report 2 | e-mail | Letter |
| Number | Number | Owner Name | Area # | Property Address | Zip | Occupied? | of agreement | owner) | Date | UWID | bgs) | bgs) | level (ft bgs) | ft) | (ft) | Pt Screen | Date | mail Date | Date | Ack. Date | after | d date | t | Date | Date | Date |
| 380-0 | 4-380-0 | | 1 | 2525 2ND AVE W | 54603 | Yes | 2/24/2021 | | 3/3/2021 | VE753 | 60-63 | 61.5 | 28 | 665 | 637 | 603.5 | 3/26/2021 | na | 3/27/2021 | | 3/29/2021 | 4/6/2021 | | 5/3/2021 | na | 5/3/2021 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |



444 21st Street South · La Crosse, Wisconsin · 54601

May 14, 2021

2525 Second Avenue West La Crosse, WI 54603

Subject: **Private Well Sampling Results**

2525 Second Avenue West, La Crosse, WI 54603

Tax parcel # 4-380-0 Sampling Point # 380-0

Sampling Date: April 6, 2021

Dear

We have received and reviewed the test results for the sample collected at the above address. This is the second sampled taken from your well. We collected this second sample because the original results were closed to the proposed standards.

While the results were similar to the first sample collected, some PFAS compounds were found at levels above the Wisconsin Department of Health Services (DHS) levels recommended for protecting health. These levels are called the "Recommended Public Health Standard" in the table below. The levels found in your well are called the "Sample Result" in the table below.

Because some of the levels are above the recommended Public Health Standard, DHS recommends that you not use your well water for drinking, cooking, brushing your teeth and irrigating vegetable gardens.

The City is offering to provide bottled water delivered to your home for drinking, cooking, and brushing your teeth. The bottled water being provided by Culligan is bottled in Rothschild, WI from a municipal water system. Culligan's source water is filtered and treated by carbon filter, reverse osmosis, distillation and other methods before it is bottled. It has been sampled for PFAS, and no PFAS was detected in the sample. There will be no cost to you for the bottled water. Please complete the attached form and mail it to The OS Group to make arrangements for having a water dispenser and bottles delivered to your home. Call 608-668-2718 or email PFAS@theOSgrp.com . You may also complete this form online at www.cityoflacrosse.org/bottledwater

The following table summarizes the test results from the sample. **Bolded results** are above a

current recommended level intended to protect your health according to the Department of Health Services (DHS).

Sample Results

| Compound | Sample Result (unit) | Recomm Public F Standard | lealth |
|--|-------------------------|--------------------------------|---|
| N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2 | Not Detected | 20 ppt a,b | opt for or the |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6 | Not Detected | 20 ppt ^{a,b} | s 20 p nunds all 6 |
| N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2 | Not Detected | 20 ppt a,b | d limit is 20 p compounds otal of all 6 |
| Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6 | Not Detected | 20 ppt a,b | ommended limit i of these 6 compc combined total of |
| Perfluorooctanoic acid (PFOA) CAS # 335-67-1 | 12 ppt | 20 ppt a,b | The recommendec any <i>one</i> of these 6 <i>combined t</i> |
| Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1 | 8.4 ppt | 20 ppt a,b | The r |
| Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6 | Not Detected | | 300 ppt ^a |
| Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5 | 6.0 ppt | 450 |),000 ppt ^a |
| Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4 | 9.5 ppt | | 40 ppt ^a |
| Perfluorobutanoic acid (PFBA) CAS # 375-22-4 | 120 ppt | 10 |),000 ppt ^a |
| Perfluorodecanoic acid (PFDA) CAS # 335-76-2 | Not Detected | | 300 ppt ^a |
| Perfluorododecanoic acid (PFDoA) CAS # 307-55-1 | Not Detected | | 500 ppt ^a |
| Perfluorohexanoic acid (PFHxA) CAS # 307-24-4 | Not Detected | 150 |),000 ppt ^a |
| Perfluorononanoic acid (PFNA) CAS # 375-95-1 | Not Detected | | 30 ppt ^a |
| Perfluorotetradecanoic acid (PFTeDA) CAS # 376-06-7 | Not Detected | 10 |),000 ppt ^a |
| Perfluoroundecanoic acid (PFUdA) CAS # 2058-94-8 | Not Detected | 3 | 3,000 ppt ^a |
| 4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4 | Not Detected | 3 | 3,000 ppt ^a |
| Perfluorooctadecanoic acid (PFODA) | Not Detected | 400 |),000 ppt ^a |

Private Well Sampling Results for 2525 Second Avenue West, La Crosse, WI 54603 Tax Parcel # 4-380-0 May 14, 2021

| CAS # 16517-11-6 | | |
|--|----------|-------------------------------|
| Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8 | 0.77 ppt | None Established ^c |
| Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4 | 4.2 ppt | None Established ^c |

^a Public health enforcement standard (ES) recommended by DHS.

As required by law, we will be submitting these results to the Department of Natural Resources (DNR). The DNR may consult with the Department of Health Services (DHS) about these test results. DHS may review all PFAS tests and follow-up with you directly if any actions are recommended to protect your health.

Thank you for your patience and assistance with our investigation. We will provide updates on the project at https://www.cityoflacrosse.org/wells as our work continues. If you have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

You can also contact the DNR and DHS with questions about PFAS or the water sample results at the numbers provided below.

| Questions about | <u>.</u> | <u>Contact</u> | <u>Phone</u> | E-mail Address |
|--------------------------------------|----------|----------------|--------------|---------------------------------|
| Soil & Groundwater Testing, Clean Up | DNR | David Rozeboom | 715-215-2078 | David.Rozeboom@wisconsin.gov |
| Drinking Water or Private wells | DNR | Kyle Burton | 920-360-2112 | kyle.burton@wisconsin.gov |
| Health Concerns | DHS | Curtis Hedman | 608-266-6677 | Curtis.Hedman@dhs.wisconsin.gov |

On behalf of The City of La Crosse

The OS Group, LLC

Attachment: Lab report for your well

Bottled Water Acknowledgement

^b DHS recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for FOSA, NEt-FOSE, NEt-FOSA, NetFOSAA, PFOS, and PFOA.

A current standard is not available; the compound is currently under review by DHS for potential public health standard recommendation.

d Public health enforcement standard (ES) in NR 140, Wisconsin Administrative Code.

e Units: Parts per trillion (ppt) = nanograms of substance per liter of water (ng/L)

BL Detected in the method blank. Possible lab contaminant.

BOTTLED WATER ACKNOWLEDGEMENT

2525 Second Avenue West, La Crosse, WI 54603

If you desire to accept the bottled water delivery, please complete and sign this form and return it to The OS Group at PFAS@TheOSqrp.com or mail to 444 21st St. S, La Crosse, WI 54601. You may also complete this form electronically on line at www.cityoflacrosse.org/bottledwater. Call 608-668-2718 with any question you may have.

As pre-caution for the protection of human health, the City of La Crosse (The City) will provide, on a temporary basis, bottled water for drinking, cooking and toothbrushing purposes at the above referenced address. The water will be delivered to your home or business by a commercial water delivery service. At the City's cost, a dispenser / cooler and regular deliveries of 5-gallon containers of water will be provided. The City reserves the right to dictate the conditions of delivery, such as minimum and maximum number of containers per delivery, frequency and timing of deliveries. The City reserves the right to periodically review whether The City should continue to provide bottled water, considering factors such as State and Federal standards and guidance, evolving knowledge and understanding of the sources, cause and responsibility for the contamination, new or reinterpreted test results, and the availability of more permanent or cost-effective sources of water for the above purposes. The City of La Crosse makes no warranty or representation regarding the suitability of the bottled water beyond those made by the commercial water delivery service.

All reusable or returnable equipment and supplies, such as the containers and cooler/dispenser, are the property of the commercial water delivery service or the City of La Crosse. By signing below, the Occupant of the above referenced property acknowledges that all reusable or returnable equipment and supplies shall be returned to the commercial water delivery service or the City of La Crosse upon request. The Occupant agrees to provide reasonable access for delivery of bottled water and pick up of reusable or returnable equipment and supplies. Occupant(s) acknowledges that they may be required to sign an agreement with the commercial water delivery service as a condition of receiving bottled water.

| Check ownership: | | |
|----------------------|--------|--|
| Owner-Occupant | | |
| Occupant Only | | |
| Number of Occupants: | | |
| Signed: | Dated: | |
| Printed Name: | | |
| Phone Number: ()_ | | |

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WD13014-001

Description: **380-0** Matrix: **Aqueous**

Date Sampled:04/06/2021 1411 Project Name: LACROSSE WELLS 23 & 24

Date Received: 04/13/2021 Project Number: 40224847

 Run
 Prep Method
 Analytical Method
 Dilution
 Analysis Date
 Analyst
 Prep Date
 Batch

 1
 SOP SPE
 PFAS by ID SOP
 1
 04/15/2021 2228
 MMM
 04/13/2021 1617
 88894

| P-chilorohexadecaflutor-3-oxannone-1-sulfonic acid (GIC-PF3ONS) 756426-58-1 PFAS by ID SOP ND 7.5 0.62 ng/L | Run |
|---|-----|
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) 39108-34-4 PFAS by ID SOP ND 7.5 1.5 ng/L | 1 |
| 11.11.11.21.21.21-perfluorootane sulfonic acid (6:2 FTS) | 1 |
| 11,11,21,21+perfluorododecane sulfonic acid (10.2 FTS) 120226-80-0 PFAS by ID SOP ND 7.5 0.82 ng/L 11,11,21,21+perfluorohexane sulfonic acid (4:2 FTS) 757124-72-4 PFAS by ID SOP ND 7.5 0.82 ng/L 12,41,21-21+perfluoronanoic acid (ADONA) 13252-13-6 PFAS by ID SOP ND 7.5 0.45 ng/L 13,41,21-21+perfluoronanoic acid (ADONA) 199005-14-4 PFAS by ID SOP ND 7.5 0.45 ng/L 14,81-31-31-31-31-31-31-31-31-31-31-31-31-31 | 1 |
| 11.11.12.12.11.21.21.21.21.21.21.21.21.2 | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 919005-14-4 PFAS by ID SOP ND 7.5 0.45 ng/L N-ethylperfluoro-1-octanesulfonamide (EIFOSA) 4151-50-2 PFAS by ID SOP ND 7.5 1.3 ng/L N-ethylperfluoro-1-octanesulfonamido-etcic acid (EIFOSA) 2991-50-6 PFAS by ID SOP ND 7.5 0.70 ng/L 2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EIFOSE) 1891-99-2 PFAS by ID SOP ND 7.5 0.89 ng/L N-methylperfluoro-1-octanesulfonamido-ethanol (EIFOSA) 31506-32-8 PFAS by ID SOP ND 1.5 1.2 ng/L N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSA) 2355-31-9 PFAS by ID SOP ND 7.5 0.87 ng/L Perfluoro-1-butanesulfonic acid (PFBS) 375-73-8 PFAS by ID SOP ND 7.5 1.2 ng/L Perfluoro-1-decanesulfonic acid (PFBS) 375-73-8 PFAS by ID SOP ND 3.7 0.33 ng/L Perfluoro-1-betanesulfonic acid (PFDSA) 375-92-8 PFAS by ID SOP ND 3.7 0.67 ng/L </td <td>1</td> | 1 |
| Nethylperfluoro-1-octanesulfonamide (EtFOSA) | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSA) 2991-50-6 PFAS by ID SOP ND 7.5 0.89 ng/L | 1 |
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| Perfluoro-1-octanesulfonamide (PFOSA) 754-91-6 PFAS by ID SOP ND 3.7 0.57 ng/L Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 4.2 3.7 0.56 ng/L Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.5 0.98 ng/L Perfluorohexanesulfonic acid (PFDOS) 355-46-4 PFAS by ID SOP ND 3.7 0.52 ng/L Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 120 B 3.7 0.56 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.49 ng/L Perfluoro-n-decanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.49 ng/L Perfluoro-n-hexadecanoic acid (PFDA) 375-85-9 PFAS by ID SOP ND 3.7 0.42 ng/L Perfluoro-n-hexadecanoic acid (PFHXA) 307-24-4 PFAS by ID SOP ND 3.7 0.64 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1< | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) 2706-91-4 PFAS by ID SOP 4.2 3.7 0.56 ng/L Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.5 0.98 ng/L Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 9.5 3.7 0.52 ng/L Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 120 B 3.7 0.56 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.49 ng/L Perfluoro-n-dodecanoic acid (PFDOA) 307-55-1 PFAS by ID SOP ND 3.7 0.44 ng/L Perfluoro-n-hexadecanoic acid (PFHxA) 375-85-9 PFAS by ID SOP ND 3.7 0.42 ng/L Perfluoro-n-hexadecanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.64 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFOA) 16517 | 1 |
| Perfluorododecanesulfonic acid (PFDOS) 79780-39-5 PFAS by ID SOP ND 7.5 0.98 ng/L Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 9.5 3.7 0.52 ng/L Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 120 B 3.7 0.56 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.49 ng/L Perfluoro-n-dodecanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.44 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.42 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.5 0.76 ng/L Perfluoro-n-nonanoic acid (PFNA) 307-24-4 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFOA) 375-95-1 PFAS by ID SOP ND 7.5 0.94 ng/L Perfluoro-n-octadecanoic acid (PFOA) 335-67-1 <td>1</td> | 1 |
| Perfluorohexanesulfonic acid (PFHxS) 355-46-4 PFAS by ID SOP 9.5 3.7 0.52 ng/L Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 120 B 3.7 0.56 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.49 ng/L Perfluoro-n-decanoic acid (PFDA) 307-55-1 PFAS by ID SOP ND 3.7 0.44 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.42 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.5 0.76 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.64 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 3.7 0.94 ng/L Perfluoro-n-pentanoic acid (PFPAA) 335-67-1 < | 1 |
| Perfluoro-n-butanoic acid (PFBA) 375-22-4 PFAS by ID SOP 120 B 3.7 0.56 ng/L Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.49 ng/L Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.7 0.44 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.42 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.5 0.76 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.64 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFOA) 16517-11-6 PFAS by ID SOP ND 7.5 0.94 ng/L Perfluoro-n-pentanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 3.7 0.78 ng/L Perfluoro-n-pentanoic acid (PFPA) 2706-90-3 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) 335-76-2 PFAS by ID SOP ND 3.7 0.49 ng/L Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.7 0.44 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.42 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.5 0.76 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.64 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFOA) 16517-11-6 PFAS by ID SOP ND 7.5 0.94 ng/L Perfluoro-n-pentanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) 307-55-1 PFAS by ID SOP ND 3.7 0.44 ng/L Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.42 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.5 0.76 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.64 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 0.94 ng/L Perfluoro-n-pentanoic acid (PFOA) 335-67-1 PFAS by ID SOP ND 3.7 0.78 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) 375-85-9 PFAS by ID SOP ND 3.7 0.42 ng/L Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.5 0.76 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.64 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 0.94 ng/L Perfluoro-n-pentanoic acid (PFOA) 335-67-1 PFAS by ID SOP 12 3.7 0.78 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| Perfluoro-n-hexadecanoic acid (PFHxDA) 67905-19-5 PFAS by ID SOP ND 7.5 0.76 ng/L Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.64 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 0.94 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 12 3.7 0.78 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) 307-24-4 PFAS by ID SOP ND 3.7 0.64 ng/L Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 0.94 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 12 3.7 0.78 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) 375-95-1 PFAS by ID SOP ND 3.7 0.43 ng/L Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 0.94 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 12 3.7 0.78 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| Perfluoro-n-octadecanoic acid (PFODA) 16517-11-6 PFAS by ID SOP ND 7.5 0.94 ng/L Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 12 3.7 0.78 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) 335-67-1 PFAS by ID SOP 12 3.7 0.78 ng/L Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) 2706-90-3 PFAS by ID SOP ND 3.7 0.51 ng/L | 1 |
| | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) 376-06-7 PFAS by ID SOP ND 3.7 0.56 ng/L | 1 |
| | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) 72629-94-8 PFAS by ID SOP ND 3.7 0.50 ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) 2058-94-8 PFAS by ID SOP ND 3.7 0.59 ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) 1763-23-1 PFAS by ID SOP 8.4 3.7 1.9 ng/L | 1 |
| Run 1 Acceptance Surrogate Q % Recovery Limits | |
| 13C2_4:2FTS 114 25-150 | |
| 13C2_6:2FTS 110 25-150 | |
| 13C2_8:2FTS 106 25-150 | |
| 13C2_PFDoA 112 25-150 | |
| 13C2_PFHxDA 111 25-150 | |
| 13C2_PFTeDA 108 25-150 | |

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

LOQ = Limit of Quantitation

H = Out of holding time

ND = Not detected at or above the DL

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

B = Detected in the method blank

W = Reported on wet weight basis

N = Recovery is out of criteria

Q = Surrogate failure

L = LCS/LCSD failure S = MS/MSD failure

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

DL = Detection Limit

 $J = Estimated result < LOQ and \ge DL$

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC

Laboratory ID: WD13014-001

Matrix: Aqueous

Description: 380-0

Date Sampled:04/06/2021 1411

Project Name: LACROSSE WELLS 23 & 24

Date Received: 04/13/2021

Project Number: 40224847

| Surrogate | Run 1 A Q % Recovery | cceptance Limits |
|--------------|-------------------------|---------------------|
| 13C3_PFBS | 98 | 25-150 |
| 13C3_PFHxS | 108 | 25-150 |
| 13C3-HFPO-DA | 110 | 25-150 |
| 13C4_PFBA | 110 | 25-150 |
| 13C4_PFHpA | 109 | 25-150 |
| 13C5_PFHxA | 111 | 25-150 |
| 13C5_PFPeA | 109 | 25-150 |
| 13C6_PFDA | 109 | 25-150 |
| 13C7_PFUdA | 102 | 25-150 |
| 13C8_PFOA | 111 | 25-150 |
| 13C8_PFOS | 102 | 25-150 |
| 13C8_PFOSA | 111 | 10-150 |
| 13C9_PFNA | 112 | 25-150 |
| d-EtFOSA | 85 | 10-150 |
| d5-EtFOSAA | 101 | 25-150 |
| d9-EtFOSE | 96 | 10-150 |
| d-MeFOSA | 104 | 10-150 |
| d3-MeFOSAA | 111 | 25-150 |
| d7-MeFOSE | 100 | 10-150 |

$$\begin{split} LOQ &= Limit \ of \ Quantitation \\ ND &= Not \ detected \ at \ or \ above \ the \ DL \\ H &= Out \ of \ holding \ time \end{split}$$

B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis

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DL = Detection Limit J = Estimated result < LOQ and $\geq DL$

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